Published every Saturday by the Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa., with editorial and executive offices: 30 Church Street, New York, N. Y., and 105 West Adams Street, Chicago, Ill.

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The Railway Age is a member of the Associated Business Papers (A. B. P.) and of the Audit Bureau of Circulations (A. B. C.).

Subscriptions, including 52 regular weekly issues, and special daily editions published from time to time in New York, or in places other than New York, payable in advance and postage free. United States, U. S. possessions and Canada: 1 year, \$6.00; 2 years, \$10.00; foreign countries, not including daily editions: 1 year, \$8.00; 2 years, \$14.00.

Single copies, 25 cents each.

H. E. McCandless, Circulation Manager, 30 Church St., New York, N. Y.

Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered U. S. Patent Office.

Vol. 105 July 30, 1938

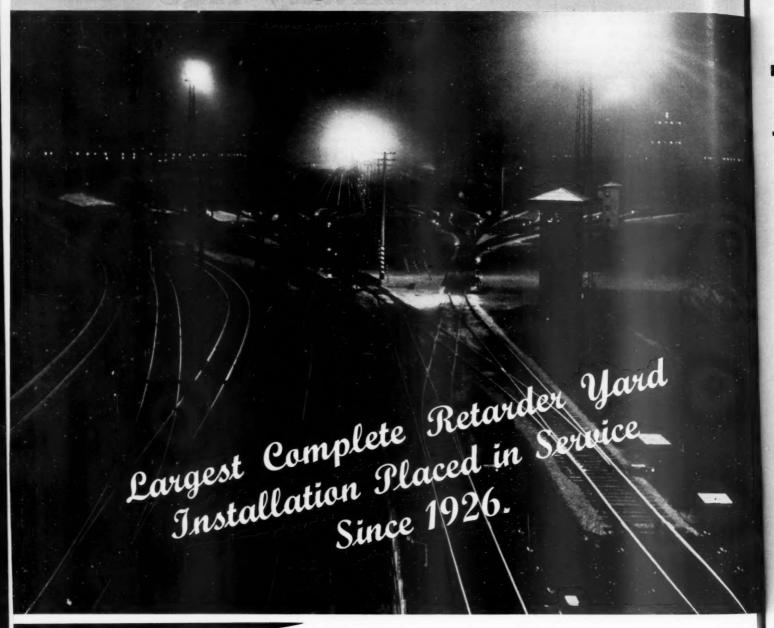
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The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service

CLEARING YARD equipped with "Union" Model 31 CAR RETARDERS



The Belt Railway Company of Chicago recently placed in service the eastbound freight classification yard for car retarder operation and the westbound yard is now nearing completion. "Union" Model 31 Electro-Pneumatic Car Retarders and Power Operated Switch Machines are used in this installation.

Some of the advantages of this improved retarder are that any amount of retardation desired may be procured; parts subject to wear are surprisingly small in number and the unit system of construction makes possible any length of retarder desired. Investigate its many advantages.



UNION SWITCH & SIGNAL COMPANY SWISSVALE, PA.

NEW YORK

CHICAGO

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The "Forgotten Man" Among Railroad Employees

The "forgotten man" among railroad employees is the employee of junior seniority status. When it is necessary to reduce forces and make demotions, seniority rules require that those most recently employed shall be laid off first, and also that seniority shall govern in making demotions. Statistics given in an accompanying table show the number of employees the railroads

Number of Railway Employees June, 1929-1938, Inclusive

	Number	compared with June, 1929
1929		
1930		171,919
1931		418,797
1932		688,713
1933	972,813	763,383
1934	1,070,837	665,359
1935	1,031,263	704,933
1936	1,101,169	635,027
1937	1.197,974	538,222
1938	935,256	800,935

have had in June in each of the last ten years. Between 1929 and 1933 the number declined 763,383. This was entirely due to decline of traffic and gross earnings. Basic wages were 10 per cent less in 1932, 1933 and 1934 than before the depression, and excepting for this employment undoubtedly would have declined more. Those remaining employed bore this 10 per cent reduction. But obviously it was the hundreds of thousands of junior employees who lost 100 per cent of their wages that suffered most; and it would seem that the first objective of labor union and railroad policy should have been to have restored as many as practicable of these junior employees to the payroll.

Junior Employees "Take the Rap"

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On the contrary, restoration of the 10 per cent reduction was begun July 1, 1934, and completed April 1, 1935, with the result that, instead of employment continuing to increase as it had for some time, it was by June, 1935, about 40,000 less than in June, 1934,—the junior employees having again taken the rap. Because of improving business railway employment increased again until the middle of 1937. Since then, because of the "recession" and the advances in wages made August 1 and October, 1937, it had declined until in June, 1938, it was the smallest in any June of the depression—over 800,000 less than in 1929; 112,000 less than in 1932, 37,500 less than in 1933 and 135,581

less than in 1934, in June of which three years the 10 per cent reduction was in effect; and also 263,000 less than in June, 1937, before the advances in wages made last year. The remaining 935,000 employees had higher wages than ever before—and more thousands of junior employees than ever before had no wages at all.

Also in the "forgotten man" category are the thousands who have been "bumped" down into inferior positions, the shop men and the maintenance employees who are working on severely reduced time, and the thousands of other employees who, although they are working now, live anxiously from day to day, not knowing whether their jobs will hold or not. These men-and there must be at least 450,000 of them (almost 200,000 on the anxious seat in addition to the 263,000 who have lost out within the last year)—do not have a single defender anywhere among the leaders of organized labor. Not one of the labor leaders themselves, not one of the politicians who parade their "friendship for labor," has turned a hand or said a word either to aid these 450,000 unfortunates, or even to acknowledge that they exist.

Why These "Forgotten Men"?

Why such callous disregard of the one group of men in the railroad industry who are really suffering from present conditions? There is plenty of hypocritical yawping by the labor leaders and the politicians about "maintaining the purchasing power" of the "old heads"* who are secure in their jobs. To these labor leaders and politicians it is a crime to suggest reducing the pay of the "old heads" by 15 per cent; but one never hears a peep out of them that the pay of 260,000 junior men has been within the last year reduced 100 per cent. It is okay with them that probably 200,000 additional junior employees have had their pay reduced by 50 per cent or more through demotions or short time.

Why? The answer is simplicity itself. The labor leaders and the legislators get their jobs through politics. The "old heads" have control of the union ma-

^{*}The very cream of railroad employees is, of course, to be found among the "old heads"—men whose experience goes back to the days when wages were low, hours were long and risks were much greater than they are today. We do not believe for a moment that most of the "old heads" approve of the selfish and short-sighted policies that a few of their more vociferous colleagues are insisting upon in their behalf. When we refer to "old heads" critically, therefore, we do not have them in mind as a group, but only the self-seeking ones among them.—

chinery; they are using it to their own selfish advantage, and to hell with the junior employees. As long as the labor leaders and the "labor loving" politicians find safety in their jobs by catering to the "old heads" and ignoring the junior men, the junior men can expect the kind of deal they are getting now. In short, it is political action within the unions and in government that has put the junior employees in their present distressing position. And they will stay right where they are until they take the necessary political steps to pull themselves out.

Policies That Prevent Employment

What are the union and governmental policies which are being followed by the labor unions and the government to beat down and ruin the junior men to the enrichment of the "old heads"? There are many such policies—but here are a few of the more important of them:

Prevention of Capital Investment—There has not been recovery of jobs on the railroads principally because there has not been recovery of general business and traffic to the pre-depression level. There has not been recovery of general business and traffic principally because there has not been recovery of the investment of capital in industry and of the buying of capital goods. The failure of capital investment to revive has been principally due to government policies preventing revival of investors' confidence in the future of business; and most labor leaders have supported, and still support, these government policies and those responsible for them. In this way they have helped, and are still helping, keep millions of men unemployed, including hundreds of thousands who would otherwise be employed by the railroads.

Maintenance of Peak Wage Rates .- The average weekly earnings of a railroad employee who had a job in the first three months of 1938 were 4 per cent higher than they were in 1937 and 6 per cent higher than they were in 1929. Meantime, gross railway revenues were 21 per cent lower than in the first quarter of 1937 and 44 per cent lower than in the first quarter of 1929. Having to pay the men with jobs more than ever before in history, and having less money to pay them with, naturally all the railroads could do was to lay men off. A substantial wage reduction would not put all furloughed men back to work, of course, but that it would immediately make it possible for the railroads to rehire a great many cannot be doubted. There are a lot of men suffering a 100 per cent reduction right now solely because of the fact that the "old heads" are refusing to take a 15 per cent reduction.

"Make Work" Legislation and the Adjustment Board Racket

"Make Work" Union Demands and Legislation.— With railroads pressed to find money for bare necessities, a "make work" agreement or a "full crew" law does not really "make work" at all. Such laws and agreements simply shift jobs, forcing the railroads to fire a useful employee in order to give a job to a useless one. A few weeks ago the executive of a bankrupt railroad was forced to close down his shops for lack of money to keep them open. On the same day he rode one of his passenger trains which carried only one coach and found two brakemen taking it easy there. They were required by a "full crew" law.

What the law gave the brakemen in jobs it took away from the shopmen. And the road needed the shopmen and it did not need the brakemen—at least not on that train.

The Adjustment Board Racket.—The unions, and particularly the train and engine service brotherhoods, have been taking cases by the hundreds to the National Adjustment Board at Chicago and getting decisions which have required the payment of hundreds of thousands of dollars to employees representing technical allowances for hours not actually worked. Every time a railroad gets "nicked" by having to pay double or triple for work done, or by having to pay for work not done at all, it has to save the money somewhere else—and, as usual, the junior employees are the goats. One road which was assessed almost a quarter of a million dollars by a referee of this Board for "back pay" to some employees at the rate of 8 hours' wages for 15 minutes of work has since been forced to pull off 600,000 miles of passenger train service per annum. The junior employees in its train and engine service have thus taken the rap for fantastic overpayments ordered by this referee.

Some of the decisions handed down by referees for this Board are disgracefully unjust, but it is hard to get the facts for publication. The decisions themselves, as published by the Board, are almost bare of information and the full facts necessary for an understanding of a case cannot be secured except from the railroad involved. And most railroads which have thus been victimized will not give out the facts for publication for fear of reprisals.

Politics That Prevent Employment

Senseless Union Rivalry.—Several of the unions are competing with each other for members. Because of that fact they are afraid to refuse to handle "grievances" of chiselers and dynamiters for fear these men will transfer their membership to a rival union. Formerly, if an employee's grievance did not have some semblance of merit, his own general chairman would turn him down. Now, however, the grievers are taking cases from every "schedule lawyer" who thinks he may be able to get a few dollars for himself by a technical interpretation of the agreements. They are even going to bat for Rule G violators, taking their cases to the Adjustment Board and getting them reinstated. In the present financial straits of the rail-

roads, every time one of these "schedule lawyers" gets an award on a technicality for time he did not put in, some poor devil of a junior employee has to be laid off to pay him. Every time a Rule G violator or an employee with a bad accident record is forced back on to the payroll, some competent junior employee is forced off the payroll.

Supporting "Labor Loving" Politicians Who Are Railroad Baiters.—The unions' political policies are for the most part aimed at advancing the interests of the "old heads" at the expense of those of the younger men. That is to say, by political means the unions seek to maintain exorbitant wage rates and to secure "make work" legislation which, as we have shown in the above, benefit the "old heads" at the expense of the jobs of the younger employees.

In pursuance of this policy, the unions support politicians who help them with "make work" legislation, even if these politicians favor measures which drive traffic away from the railroads. It is true that the unions have supported measures like the Pettengill bill which would increase railroad traffic and employment. But in endorsing candidates for office they regard as a true "friend of labor," not the politician who supports such a measure as the Pettengill bill, but the politician who helps them with "make work" legislation even if he favors measures which help railroad competitors and take traffic away from the railroads and jobs away from junior railroad employees.

Labor Union Distribution of Political Favors

In other words, the labor unions endorse the candidates who support legislation of a kind to help the "old heads"-not those who support legislation to help save or restore the jobs of the younger employees. As an example of what we have in mind, take Senator Ashurst of Arizona. By his threat of filibuster, Senator Ashurst is almost solely responsible for the failure of the Pettengill bill to come to a vote in the Senate at the recent session of Congress. By this action he has shown himself unfriendly to the thousands of furloughed railroad employees in Western territory whom the passage of the Pettengill bill might have called back to work. But do the labor organizations resent Senator Ashurst's action? Read the B. of L. F. & E. Magazine for July, page 4, where in an editorial footnote it speaks of Senator Ashurst's brother as "a chip off the old blockyounger, but just as vigorous and friendly to the workers." Senator Ashurst can thus kick the furloughed employees in the pants all he likes as far as labor union friendship is concerned. But what would the union leaders say about him if he were an enemy of "make work" legislation for the exclusive benefit of the "old

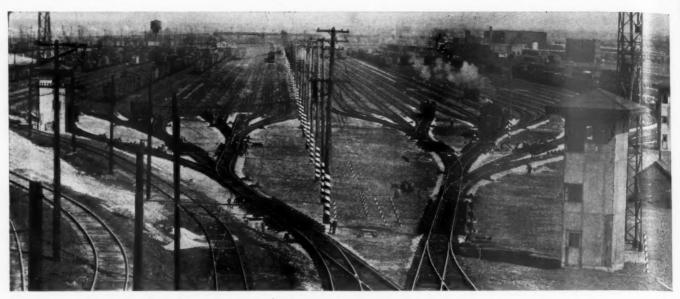
The above are not the only policies by any means which disclose that labor union leadership has surveyed the conflicting interests of the "old heads" and the younger employees and has deliberately decided to throw

the latter into the ash can. But the younger employees do not have to stand for it unless they want to. There are enough of them so that, acting in unison with the "old heads" who are fair-minded, they could force a complete revolution in railroad union policies. As a starter, here are a few steps they might take:

Will Junior Employees Defend Themselves?

- 1. Continue their agitation within the unions both locally and nationally against "mileage hogging" and other such practices discriminatory against younger employees.
- 2. Form committees of furloughed and demoted employees in railroad communities to call on local merchants and newspapers and explain to them how extreme favoritism of the older employees is curtailing railroad employment and hence is hurting business in railroad communities.
- 3. Collect information about chiselers who are initiating "grievances" on technicalities and are trying to collect unjustified pay which, if they get it, will force the railroads to lay off more men. Get publicity for cases of this kind in local papers or, if they won't print them, send them to us (but be sure to get the facts straight) and we will print them. The same goes for Rule G violators and other reckless employees who may be reinstated by union pressure to jobs which their conduct shows they are unfit to occupy.
- 4. If the junior men truly believe that a reasonable reduction in wages might enable the railroads to reemploy them, why not write to President Roosevelt, or the National Mediation Board, or representatives in Congress and the Senate and to local newspapers and tell them so? Because the union leaders have told governmental authorities and the public in general that "labor will not give the railroads the whiskers from yesterday's shave." If the junior employees feel differently about it, then let the world know it.
- 5. The junior and furloughed employees should let the politicians know that—despite what the labor union leaders claim—they are going to vote for candidates who favor prosperous railroads and more traffic, and not the hypocritical "labor lovers" who are working night and day to put the railroads out of business and transfer their traffic to the trucks and the water lines.

There are other steps that the "forgotten employees" can take to defend themselves, but the above at least suggest a line of action. One thing they can be sure of is that, if they don't organize to save themselves, nobody is going to do the job for them. It is politics which has done them out of their jobs and it is politics alone to which they must look for a remedy. And in politics nothing counts but votes. And if the junior employees will not use their votes and their political power in their own behalf, it is just too bad for them. Certainly, playing the tail to the "old heads" makework, high-wage kite has got them nothing—no, not even a "Thank you."



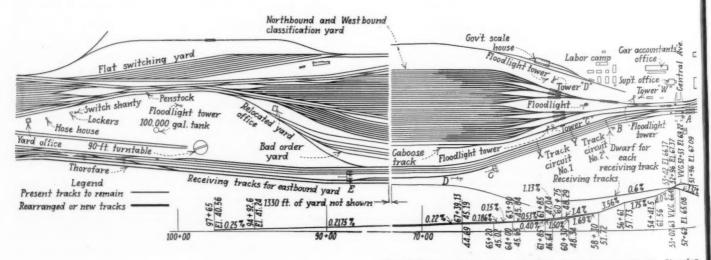
General View Looking East Through the Classification Track of the Eastbound Yard

Belt Railway Rebuilds Clearing Classification Yard

Classification tracks reduced in number and lengthened with changes in layout and grade adaptable for installation of retarders—Average time of cars through yard reduced substantially

PRIMARILY to assist in meeting the demand for faster handling of freight traffic, the Belt Railway of Chicago has revolutionized its entire operation, a major item in the program being the extensive reconstruction and addition of new facilities in its gravity classification yard at Clearing, Ill., about 14 miles southwest of the business district of Chicago. In brief, the yard changes include revision of the layout and grades of the classification yard to permit the installation of

retarders and the make-up of longer trains, the reduction in the use of receiving and departure yards, the moving of 1,300 ft. of icing platform to the new eastward receiving tracks, the installation of a loud-speaker telephone system for yard communication, the use of printing telegraph for handling switch lists, and complete floodlighting of the yards. As a result of these improvements the overall time of cars passing through the terminal has been substantially reduced.



Sketch Layout of the New Clearing Classification Yards, Showing

The reconstruction of the eastbound yard was started in July, 1937, and it was placed in service on January 19 of this year. The reconstruction of the westbound yard was then started, and it will be completed in September. In the meantime all classifications are now being handled in the new eastbound yard.

The Purpose of This Yard

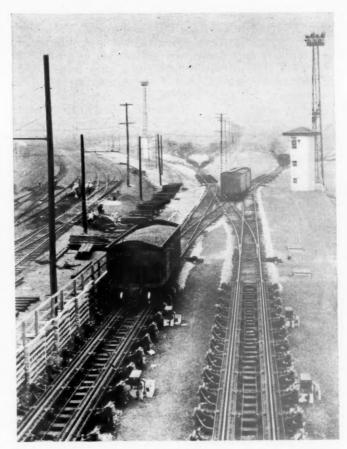
Clearing yard is a facility for the interchange of freight cars between practically all of the railroads of Chicago. The Belt Railway, which owns and operates this yard as well as 117.6 miles of main tracks connecting with all the railroads entering Chicago, is owned by 13 railroads—the A. T. & S. F., the C. & O., the C. & E. I., the C. B. & Q., the C. R. I. & P., the C. I. & L., the Erie, the G. T., the I. C., the M. St. P. & S. S. M., the Penna., the P. M. and the Wabash. Cars for interchange are delivered to Clearing yard, where they are classified and then delivered to connections. Some roads operate their own locomotives and crews into and out of the yard, while the Belt renders this service for others. During peak business periods, as many as 6,000 cars have been classified in this yard daily.

Clearing yard, as constructed in 1914, consisted of two complete classification yards, served from the same hump. The two yards were laid out on practically the same general plan, and, therefore, this description will be confined to the eastbound yard as typical of both.

The 16 tracks in the receiving yard, each with a capacity of 70 cars, were connected to four tracks extending to the two leads over the hump. These leads, with crossover connections, continued over the hump, and each connected with two leads, from which yard tracks extended in a ladder arrangement to the left from one track and to the right from the other; thus the layout included four major ladder tracks. Each of the 54 classification tracks in this yard had a capacity of 45 cars, bringing the total capacity to 2,430 cars; in addition, 3 tracks were used as repair tracks. At the lower end of the yard, the tracks were connected by ladders in a V arrangement, extending to two main leads which led into a 12-track departure yard with each track long enough to hold 70 cars.

Why the Operations Were Modernized

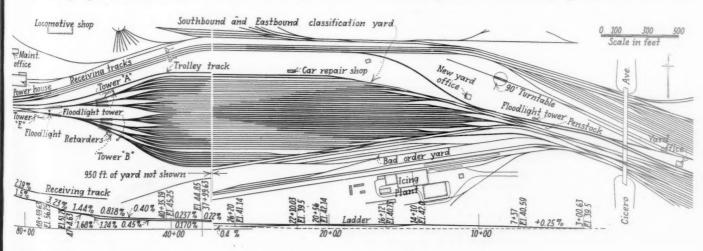
The earlier practice of operating this yard at a uniform rate throughout the week did not meet present-day demands for expeditious handling of all classes of traffic. Although perishables, stock and merchandise were han-



Both Tracks Down the Hump of the Eastward Yard Are Equipped
With Retarders

dled promptly, from 12 to 24 hr. elapsed before some of the other traffic was classified and dispatched. Furthermore, during recent years the bulk of the traffic has been moving through Clearing on close schedules and had to be handled in four peak periods daily. The traffic is especially heavy on Thursday, Friday and Saturday, with a reduction on Sunday, while Monday and Tuesday are light, and business picks up again on Wednesday. Therefore, the problem was to increase the operating capacity of the yard to handle peak demands during the early morning and evening hours by some flexible, economical system of operation and to eliminate unnecessary delays elsewhere in the yard operations.

Another phase of the changing situation was that,



the Track Grouping Arrangements and Location of Retarders

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although in previous years all cars for interchange had been delivered to Clearing for classification, the volume of interchange between certain trunk lines was becoming of such importance and volume as to justify the operation of trains over the Belt directly from a yard of one trunk line to a yard of the connecting line. For example, a Belt train now picks up cars from various roads at South Chicago at 4 a. m., goes to 87th street, where cars from the Wabash, Erie and Monon are picked up, and then goes directly to the Proviso yard of the C. & N. W. Other trains are operated on similar schedules between various other yards. This direct movement of cars resulted in a reduction in the number of cars and number of classifications to be handled at Clearing.

In previous years, cars were delivered to Clearing at any time during the 24-hr. period, when enough cars were available to justify a train. Now the majority of the traffic moves promptly on receipt at the yard of a trunk line. Also, the Belt has established scheduled trains to pick up cars from the yards of various trunk lines and deliver them to Clearing. For example, four trains starting at about 4 a. m. pick up cars from Proviso on the C. & N. W., Bensenville on the C. M. St. P. & P., Hawthorne on the C. B. & Q., Twenty-second street on the C. G. W., West Hawthorne on the I. C., etc., and all these trains, in addition to numerous others, arrive at Clearing between 5 a. m. and 6 a. m. These cars are classified and ready for departure by 8 a. m.

In addition to intermittent train movements by Belt and trunk line crews to deliver cars to trunk line yards, the Belt performs special last-minute delivery of cars to connections. For example, cars for the Pennsylvania which are classified during the morning peak period up to 6:45 a. m., are delivered by a Belt crew to the Pennsylvania at 59th street, where they are set in a train scheduled to leave at 8 a. m. The same service is performed for a Pennsylvania train leaving at 8 p. m. Wabash and Erie connections are handled the same way. Cars which are to go in such trains are given the standard inspections for road service before leaving Clearing. Thus, the operation of the Belt has become more that of road service than solely classification of cars at Clearing, and, with the prompt movement of cars to and from Clearing on close connections, was a factor in influencing the need for changes in methods of operation of the yard.

Receiving Yard Source of Delays

During recent years, the number of cars in arriving trains increased beyond the capacity of the 70-car tracks in the receiving yard. Furthermore, on account of interference between switching moves and arriving trains,

considerable time was lost in re-assembling these cars and moving them to the tracks leading to the hump. Arriving trains were spaced at such time intervals that they could all be received on four tracks if these tracks were long enough to hold at least 100 cars. Therefore, the four tracks extending from the receiving yard to the hump were lengthened to hold 110 cars each, and trains arriving at the yard now pull in directly on one of these tracks. To provide a means for the locomotive of an arriving train to be returned to the lower end of the yard, a fifth track was laid parallel with the arrival tracks, and is kept clear for this purpose. The change in operation just explained is alone effective in reducing by 25 min. the overall average time of cars through the yard.

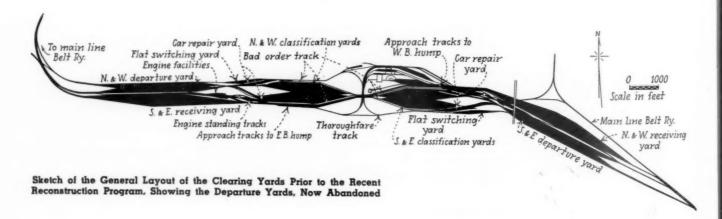
In the previous arrangement, cars to be iced were switched out of the departure yard to an adjacent icing platform, introducing considerable flat switching and attendant delays. To overcome this, 1,300 ft. of the single- and double-deck icing platform, long enough to ice 30 cars at a time on each side, was moved approximately a mile to the west and relocated between two of the tracks on which trains arrive. This change is estimated to make a further saving of at least 30 min. for cars requiring icing.

Change in Number of Classification Tracks

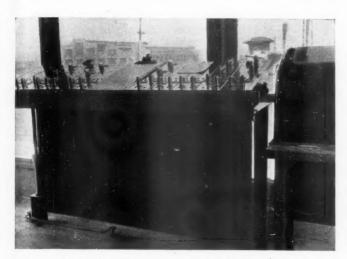
As time progressed, it was found that there was no longer need for as many as 54 classifications, but that the need was for longer tracks for the fewer classifications. With the previous method of operation, paths across the yard had to be left clear of cars, through which the riders and skate men could pass. Therefore, the actual capacity of each track was only about 38 cars. With this limited capacity, it was necessary to use two or more tracks for some of the classifications, which necessitated extra engine moves when doubling to transfer the cars to the departure yard. To meet these conditions, the number of classification tracks was reduced from 54 to 44 and the tracks were lengthened.

The previous ladder arrangement of switches at the hump end of the classification tracks was not adapted to retarders because, in addition to retarders on the main leads, one retarder would be required on each classification track. Therefore, not only to separate the cars going to different routes more quickly, but also to reduce the number of retarders required, the ladder arrangements were replaced with seven groups, as indicated on the plan. In order to provide maximum length for the classification tracks, and also to separate routes more quickly, the first three switches in each group were lapped.

One retarder is located on the lead to each group of



tracks. The leads from the three groups on the north side are connected to a secondary lead, and the leads from the four remaining groups are connected to another secondary lead, each of these secondary leads being equipped with a retarder. These secondary leads, with crossover connections, extend up the hump, retarders being located on both leads. Thus a total of



The Switches and Retarders Are Controlled by Machines in Towers

11 retarder locations serve the entire layout of 44 tracks. The length of each retarder depends on the number of cylinder units. The retarders in the eastbound yard total 1,761 rail ft., and in the westbound yard 1,548 rail ft. These retarders represent the latest development in the electro-pneumatic type and are known as the Model-31 of the Union Switch & Signal Company. Each retarder is composed of a series of simple self-contained interchangeable cylinder units, spaced 6 ft. 3 in. apart, to which the brake beams and their associated brake shoes are attached. The air to feed each set of 10 to 12 cylinders in a retarder is supplied through an electro-pneumatic control valve, arranged to furnish four pressures, 25 lb., 50 lb., 75 lb., and 100 lb., thus providing the usual four degrees of retardation. Twenty-four control valves are used in the east-bound yard and 20 in the westbound yard. A singlerail track circuit extends through each switch and prevents operation of the switch under a car.

Grade Change in Hump Leads and Yard Tracks

In the old layout, the grade down the hump was 4 per cent for 328 ft., followed by 0.9 per cent through the area including the switches and turnouts, and 0.4 per cent throughout the major portion of the yard tracks. New grades were developed from the experience gained at numerous yards where retarders are in service. Time-distance studies, using stop watches, were made after the eastbound yard was in service, and this information is being used to make further slight changes in grade on certain tracks. The apex of the hump was moved west 12 ft., and lowered 3 ft. The grade down the hump was revised to 3.32 per cent for 154 ft., followed by 1.5 per cent for 241 ft. through the crossovers; then 3.23 per cent for 155 ft. through the retarders in the secondary leads. Through the area including the switches, turnouts and retarders in the group leads, the grades vary on the different tracks, depending on the length of track and curvature in each route. Flange oilers, located on the hump lead tracks, reduce curve friction and rail wear. To keep cars moving without

accelerating materially, and to hold the speed to not more than 4 m. p. h., the grades in the classification tracks were revised to 0.22 per cent, with an ascending grade of 0.25 per cent for 400 ft. at the lower end of the yard. Some exceptions were made in the westbound yard, where the grade on eight tracks, to be used for loaded coal cars, is 0.18 per cent.

The revision of grades necessitated that the upper end of the yard be lowered a maximum of 7.5 ft., and that the departure end be raised a maximum of 4 ft. Making these changes, which was done with cranes and clamshell buckets, a dragline and bulldozers, involved the handling of approximately 92,500 cu. yd. of material, about 14,000 cu. yd. of which was stone and cinder ballast, which was salvaged for use as sub-ballast in the

revised track layout.

Incident to the grading and track changes, the entire yard subdrainage system was revised, both to secure proper pipe slopes and to provide direct surface drainage for each of the switches at both ends of the yard. This latter feature was considered especially desirable since it is planned to install snow melters on the switches at the hump end of the yard. The drainage work in the eastbound yard involved the installation of 1,133 lin. ft. of 8-in. and 10-in. Armco galvanized paved pipe for extensions beneath tracks, and of approximately 4,800 lin. ft. of 6-, 8-, 10- and 12-in. vitrified tile pipe for locations between tracks. It also includes the placing of 106 Armco pipe risers or catch basins and 38 catch basins of concrete block construction.

The trackwork included the laying of approximately 76,500 ft. of track and the installation of 92 turnouts and 8 lap switches. New 100-lb. rail, new switches and new No. 9 solid manganese frogs were installed throughout the throat to the classification yard, from the hump to the clearance points of the various classification tracks, and also to a large extent at the departure end of the yard. All new ties, both switch and crossties, were creosoted, the crossties being prebored and adzed, and like all other ties within the yard, were equipped with tie plates. To check rail creeping, all tracks within the yard area, including the yard body tracks, were equipped with four anti-creepers to the rail length.

Eliminating the Departure Yard

It was evident that if the classification tracks were lengthened and leads properly arranged most trains could depart directly from the classification tracks. For this reason, the V-shaped ladder arrangement of leads at the lower end of the yard was eliminated, and the classification tracks extended. In order to make the yard tracks available for the several leads, the switches at the outlet end were arranged so that the tracks are in groups, as shown on the plan. Each of the six groups on the north side is connected to an independent lead so that trains can depart simultaneously from different groups, while group No. 7 on the south side connects with the lead for group No. 6. The switch stands for the switches at the departure end of the classification tracks, as well as through the departure leads, are all new Pettibone-Mulliken Company safety type, which are so arranged that trains can trail through these switches without the necessity of operating the stands. This feature prevents switches being run through.

Under the previous method of operation, the cabooses for departing trains leaving from the departure yard were set on the trains in that yard. In the new arrangement, provision has been made to place the caboose on the rear of each train after it has been made up on a classification track. In the old layout, there was a

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Cars Move Over the Hump at an Average Speed of 3 M.P.H.

track on each side of the classification yard on which electrically-propelled cars were used to haul riders from the lower end of the yard back to the hump. The "trolley" track on the north side was retained, with some realinement, and this track is used to take the cabooses from the lower end of the yard up to the hump and drop them down onto the rear of the trains ready for departure.

With retarder operation, the cars couple automatically as they come together, while no openings need be left for paths. The ground crew connects the air hose as fast as the cars are assembled on the classification tracks, using hooks so that the men do not enter between cars. As a result of the changes in layout and practices to permit trains to depart directly from the classification tracks, a reduction of 1 hr. to 1 hr. 15 min. has been made in the overall time of a car passing through the

In the previous arrangement, the switches in the hump leads and those leading to the classification tracks were operated by electro-pneumatic switch machines, which were controlled by a push button machine in a tower on a bridge over the hump. This building has been retained and is now used as the yardmaster's office where he can watch the operations of the entire yard.

New Control System

The switch machines were converted to the directacting type, and installed in the new yard layout. These
switches, together with the retarders, are now controlled
by new desk-type machines, one in each of three towers.
Tower E controls the switches in the main leads, the
switches which route cars to any one of the seven track
groups, and also the retarders in the hump lead and in
the two main leads to the groups. Tower A controls the
switches of the classification tracks in the three groups
on the north side, as well as the retarders in the three
leads to these groups. Tower B performs the same

control for the four remaining groups on the south side. Each tower is 10 ft. by 12 ft. in area, three stories high, and is constructed with a Truscon steel frame set on a concrete foundation. The wall enclosures are of Truscon Ferroclad, 1 in. thick, and the floors are of concrete. A circular steel stairway is located in the building. The control machine, loudspeaker, teletype receiving machine, and toilet facilities are on the top floor, which is 21 ft. above the rail level. The second floor houses relays and two sets of six cells of Exide Type EMGS-9 battery which feed circuits for the control of the electro-pneumatic switch machines and retarders.

A loud-speaker telephone system connects the yard-master's office, the humpmaster's office, and the three retarder control towers. A second two-way loud-speaker telephone system extends between the yardmaster's office and two outdoor stations, one near the center of the yard and the other at the lower end of the yard, this system being used for the direction of the ground crew in establishing the head end of trains, in making up trains, etc. This telephone equipment was furnished by the Western Electric Company.

As a part of the improvements, a floodlighting system was installed, one 80-ft. steel frame tower being located near Tower E, and a 100-ft. tower at each of three locations, at Tower A, at Tower B and at the lower end of the yard. These towers were fabricated by the Mississippi Valley Structural Steel Company, and were assembled in a horizontal position on the ground, in which position the conduit and wiring were installed and the towers painted with aluminum. The completed tower was then erected in place by means of a locomotive crane.

The floodlight units were furnished by the Pyle-National Company. For general yard illumination, 23-in. units with clear lenses are used with 1,000-watt lamps. For local illumination in the retarder areas, 23-in. units with spread lenses and 750-watt lamps are used. The main lighting consists of 10 floodlight units located on the tower near Tower E, 9 on the two towers at the sides of the yard, and 7 on the tower at the lower end of the yard. The lighting was further amplified by smaller units as required at the hump where cars are cut, and at various points in the lower yard. On a clear, dark night the illumination at track level is 0.184 lumens per square foot, or, in other words, sufficient to enable one to read a newspaper.

Operation of the Newly Equipped Yard

As an arriving train pulls in, a checker, located at the lower end of the yard, telephones, by means of a loud-speaker system, to the agent's central office, giving the initials and numbers of the cars as the train pulls by. When the caboose arrives, the conductor delivers the waybills to the yard office at the lower end of the yard, and they are sent by the tube system to the agent's central office, located 500 ft. north of the hump. A carrier holding as many as 100 waybills can be dispatched between the two offices in three minutes.

The bills are checked against the telephone list to insure proper sequence, and checks are made of diversion orders. The waybills are then sorted as to classifications, and switch lists are made in typed form on the Teletype transmitting machine, two copies being made for office records. A copy of the switch list is furnished to a clerk representing the traffic department, who answers all telephone calls concerning the receipt and departure of cars in transit. Simultaneously with this operation, the Teletype receiving machines in the yard-

master's office, the lower end yard office and in each of the three towers, are reproducing the same list. Duplicate copies are made on the machine in the yardmaster's office, one copy being dropped down a tube to the hump conductor.

Within 30 min. from the time the conductor of an arriving train delivers the waybills to the office at the lower end of the yard, the office work is done and the switch lists are printed at the various locations mentioned. In the meantime, the arriving locomotive has been cut off, run back to pick up its caboose and then moved to the turntable. Then the hump locomotive is attached to the string of cars and the train is ready to be humped. Humping can start as soon as the first sheet of the switch list has been transmitted to the receiving machines.

Formerly the waybills were sorted and switch lists prepared in the yard office at the lower end of the yard, and these lists, together with waybills, were sent by the tube system to the agent's central office. The switch list was then delivered by tube to the humpmaster. Under the new arrangement, all of this work for both yards is handled at the agent's central office, and 15 to 20 min. time is saved. Furthermore, the elimination of delay at this point is the major factor in making it possible to handle all the incoming trains on four arrival tracks.

When any considerable proportion of the waybills are to be abstracted for record purposes, the bills are photographed on a Recordak machine which will handle 80 waybills per minute. Films exposed prior to midnight are developed and prints are made and delivered to the agent's central office by noon the next day, and the abstracting is done during the afternoon. The use of the Recordak machine eliminates any delay to cars on account of holding waybills to make abstracts at Clearing.

The movement of trains into the four receiving tracks and the operation of locomotives pushing cars from these tracks to the hump are controlled by color-light signals which, during stormy weather, are supplemented by pneumatic whistles. The automatic-manual control of these signals is new. So far as the movement over the hump is concerned, the hump conductor controls the signals by a lever stand in his office at the hump, with a yellow aspect indicating proceed at normal humping speed (3 m. p. h.) and red, stop.

The waybills for a departing train are sent from the agent's central office through the tube system to the office at the lower end of the yard, where they are handed to the conductor, when he delivers the waybills for the train with which he arrived. While the locomotive is being turned on the turntable and is being connected to the train and the brake line pumped up, the conductor has time to check his train. These operations require about 15 min. The caboose is dropped over the hump to the rear of the train as previously explained.

Speed of Operation

At the present time, the traffic moving through Clearing yard is light, the total number of cars classified in April being 77,362, and in May 74,435. Anticipating the return of freight traffic to normal volume, the new yard is designed to handle 6,000 cars daily, and with a few changes in operation the capacity can be increased to meet any reasonable demands up to 10,000 cars daily.

The current problem, however, is to meet the demand for expeditious classification of cars during peak periods by an economical method of yard operation. Eastbound cars received between 5 a. m. and 6 a. m. depart at 8 a. m.; cars received between 9 a. m. and 10 a. m. depart at 11 a. m.; and, cars received between 3:30 p. m. and

4 p. m. depart by 6:30 p. m. Westbound cars received between 2 p. m. and 4 p. m. depart by 6:30 p. m. As a general rule, about 40 per cent of the cars are empty and 60 per cent loaded. With the hump in operation an average of 40 min. each hour, and the speed maintained at 3 m. p. h. over the hump, about 1,200 cars can be humped in an 8-hr. trick. With cars and hump engines available, so that only a few minutes are lost between the end of one string of cars and the beginning of the next, the capacity of the hump operation ranges from 150 to 200 cars an hour.

Furthermore, the yard is laid out so that two trains can be humped simultaneously. In rush periods, from 400 to 500 cars of eastbound perishables are received between 2 a. m. and 6 a. m. Two or more solid trains of perishables may arrive from the west with all cars destined to points on only five roads to the east. By setting up five classifications in the north half of the yard, and the same five classifications in the south half of the yard, each train can be pushed over one of the two leads and the classifications be underway at the same time, thus saving 30 min. or more for all the cars in both trains, because each of the roads to the east wants to make up and take all of the cars for its line as a solid train. With this duplex operation, a second hump conductor and cutter are required and an extra operator is on duty in Tower E. In view of the fact that duplex operation will not be required in the westbound yard, retarders are provided on only one lead over the hump.

Underground Cable Construction

A special feature of the installation of the power switches and retarders is that all the control circuits are in underground cable buried at least 30 in, below the



The Teletype Sending Machines in the Central Yard Office

ground and surrounded by 1 ft. of sand below and 2 ft. of sand above each cable. A 12-conductor No. 14 cable extends from a control tower to each switch, and a 7-conductor No. 14 cable to each retarder valve. Single-conductor No. 8 cable was used for track connections. A total of 88,000 ft. of cable was required for the installation in both yards. This cable, furnished by the Okonite Company, was made to specifications of the Belt Railway, the protection including a layer of lead, a layer of jute, two layers of steel tape and an outer covering of impregnated duck tape. Duck tape was used instead of jute roving as an outer covering as

(Continued on page 192)

Renovated Western Maryland Coaches Are Air Conditioned

Comfortable appointments and air-conditioning with Genemotor power drive are features of the cars

HE Western Maryland recently renovated four allsteel vestibule coaches in its Union Bridge shops and made certain modifications in the construction necessary for the installation of air-conditioning equipment. The general dimensions of the cars and the new equipment installed are given in the accompanying tables. Each car now includes 30 revolving and four bulkheadseats for the accommodation of 68 passengers, and a women's and men's saloon at opposite ends of the car. The revolving seats have individual rubber cushions and upholstered arm rests, and are covered with blue mohair

Genemotor Unit, Consisting of a 20-Kw. D.C. Generator and 10-Hp. A.C. Motor, Connected to the Spicer Axle Drive

plush. Non-glare ceiling-light fixtures with twin lenses focused to give a strong light on the reading plane for each passenger, are located over each of the seats. The clerestory at the center of the car has been completely insulated and accommodates the air-conditioning ducts.

The evaporator unit is located at the end of the car opposite the women's toilet, while panels for the airconditioning equipment are located at the other end of the car opposite the men's toilet. The evaporator unit is attached by a vertical connection to the overhead duct with a canvas boot to prevent vibration and noise from being carried into the passenger compartment. The evaporator unit consists of heating and cooling coils, drip pan, and thermal expansion valve, and is equipped with a circulating fan driven by a 3/4-hp. d.c. motor. This unit may be operated for either ventilation, cooling or heating. When used for ventilation all coils are dead, only the blower fan operating; when operated for cooling, the Freon lines are in action. When operated for heating, steam is passed through the heating coils, which have sufficient heating capacity for mild weather. The floor heat automatically cuts in when the overhead circulation fails to maintain a temperature of approximately 70 deg. F.

The condenser and compressor unit, the latter run by a 10-hp. d.c. motor, are hung beneath the center of the The compressor is a single-acting unit with a capacity of 6.92 tons of refrigeration. Power is supplied by a Genemotor consisting of a 20-kw. d.c. generator and a 25-hp. a.c. motor, built into a single unit with the revolving parts of both carried on one shaft. The generator is driven through a shaft connection and automatic clutch from the axle when the car is in motion, but when standing still it is driven by a 25-hp. motor from an a.c. line connected through a standard plug-in receptacle. The Genemotor, supported on rubber carried by hangers attached to the center sills, is driven by a Spicer unit with a spline drive shaft and automatic clutch which engages when the car is in motion and releases when the car is standing, leaving the Genemotor shaft free for terminal motor operation. Each car is equipped with 50 Edison G-18-H batteries of 1,000 amp. hr. capacity.

When the cars were placed in the shop for renovating, the clerestory of each was prepared for installing the air duct by removing all lighting fixtures and side moldings, and by sealing the ventilator doors with patches of Stonefelt insulation. The air duct was then placed in the clerestory and supported by cross-bars or special carlines carrying wood strips to which the headlining of the car was later attached. The duct which runs longitudinally down the center of the car in the clerestory, is 73/4 in. deep and 41 in. wide, with a maximum air capacity of 2,400 cu. ft., which is within the approved velocity limit of 1,200 ft. per min. The duct is protected by a covering of Johns-Manville Stonefelt insulation. The angles and vertical connection to the evaporator are fitted with vanes to distribute the air flow over the entire area of the duct.

Two 20-in. by 20-in. grilles are placed in the lower



The Air Duct and Supporting Crossmembers in Place in the Clerestory of the Coaches





The Coaches Before and After Renovating—They Now Have Revolving Seats and Non-Glare Lighting, and Are Air-Conditioned—The Duct is Located in the Clerestory

portion of the doors to the plenum chamber to admit return air for recirculation. Another grille of the same size is placed in the ceiling of the vestibule and connected by a duct to the plenum chamber to receive fresh air. The fresh-air grille is equipped with a damper to limit the intake to the desired volume. Each grille is backed with an Air-Maze air filter to prevent dust from entering the plenum chamber.

The air-conditioning and heating-control panel consists of four sections. The top section carries a voltmeter and an ammeter for testing generator output. The second section automatically controls the floor heat and provides means for manual operation when emergency requires. The third section controls the overhead heating and cooling. The main switch has four positions—off, ventilating, heating and cooling. At the bottom of this section is a flip-on switch which starts the evaporator fan motor, and when this is on the panel automatically controls the operation according to the operating position at which the main switch is set; this section also provides manual control of overhead heat. The bottom section is the compressor control panel which operates through automatic thermostatic control to govern the compressor when the main switch is in cooling position.

the generator will start or stop charging the batteries, by automatically closing or opening the reverse-current relay. It also automatically maintains a reset circuit in the compressor control when the generator is charging. The bottom section is the generator control panel which automatically governs the generator output. Generator protective fuses are also mounted on this panel.

The lighting switchboard is installed in the original

Equipment Applied to the Western Maryland Coaches

Equipment applied to the	Working Many Mand Codelles
Refrigeration equipment, Airtemp.	York Ice Machinery Corp., York, Pa.
Genemotor	Safety Car Heating & Lighting Co., New York
Automatic gear drive, Spicer	Safety Car Heating & Lighting Co., New York
Lighting fixtures, twin condenser	Safety Car Heating & Lighting Co., New York
Air distributors	Safety Car Heating & Lighting Co., New York
Storage Batteries	Thomas A. Edison, Inc., West Orange, N. J.
Seat, revolving	J. G. Brill Co., Philadelphia, Pa.
Air grilles	Barber-Coleman Co., Rockford, Ill.
Air filters	Air-Maze, Inc., Cleveland, Ohio
Automatic temperature controls	Vapor Car Heating Co., Chicago
Lavatories, white vitreous	Dayton Mfg. Co., Dayton, Ohio
Hoppers, Eckert	Dayton Mfg. Co., Dayton, Ohio
Steam heat connectors	Barco Mfg. Co., Chicago
Stonefelt insulation	Johns-Manville Sales Corp., New York

Principal Dimensions of the Western Maryland Coaches

The other lighting-control panel consists of three sec-

Length overall, coupled, ft. and in	78- 71/2
Length over sills, ft. and in	70- 31/2
Length over truck centers, ft. and in	54- 31/2
Wheel base, ft. and in	8- 0
Width at eaves, ft. and in	$10 - 0^{15}/_{16}$
Width over sheathing, ft. and in	9-103/8
Height, track to roof at center, ft. and in	13- 81/4
Height, rail at side to eave molding, ft. and in	10-117/8
Height, track to sill at end, ft. and in	3- 71/2
Height, track to sill at center, ft. and in.	3-8
Highest point of car, roof, ft. and in.	13. 81/2
Light weight, lb 130	,000

tions. The top section regulates the voltage on lamps and evaporator motor circuits and on the portion of the thermostatic control circuits that require constant voltage. The middle section determines the voltage at which

locker in front of the men's toilet. The present arrangement has one circuit for all end lights and four separate circuits for alternate lamps on each side of the passenger compartment.

THE FRENCH NATIONAL RAILWAYS is issuing low rate second and third class tickets for single day excursions out of Paris, which are based on a zone or belt system of graduated rates. The area about Paris will be divided into six zones. Tickets for zone 0 will carry excursionists to near-by forests along the Seine and Oise rivers. Zone No. 5 covers an area of approximately 60 miles from the metropolis and includes Chateau Thierry, Evreax, Montdidier and Pithiviers. Should this plan bring satisfactory results, it is intended to offer the same rate system to other large cities, including the following: Lyon, Lille and Marseille.

60-Hour Week for Truck Drivers

I. C. C. affirms Division 5 stand, but requires drivers to rest 8 hours after driving 10; Effective date October 1

WASHINGTON, D. C.

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ITHOUT a dissenting vote the Interstate Commerce Commission on July 26, affirmed Division 5's finding with regard to maximum hours of service for motor carrier employees with the single exception that the full commission eliminated the 15 hours "on duty" and 12 hours "at work" provisions and substituted a requirement of 8 hours rest after every 10 of driving. Division 5's ruling was abstracted in the Railway Age for January 8, page 127. The commission also dismissed the petition of the American Federation of Labor and affiliated organizations asking for a stay of the regulations "until a detailed factual study is made of the hours of service of drivers." At the same time the effective date of Division 5's order was changed from July 1, to October 1.

Briefly, the history of this case runs as follows: On December 29, 1937, Division 5 prescribed rules and regulations, effective July 1, 1938, governing the maximum hours of service of drivers of motor vehicles operated by common and contract carriers. By a petition filed March 3, representatives of organized labor, led by William Green, president of the American Federation of Labor, asked the commission to stay the regulations "until a detailed factual study is made of the hours of service of drivers" and requested the opportunity to show that such a stay should be granted. On April 4, the commission reopened the case for oral argument before the full commission and this argument was held on April 25, and abstracted in the *Railway Age* for April 30, page

Division 5 Condemned Long Hours

Denying the request of the labor organizations that a stay be granted until such a time as a detailed scientific study of motor carrier hours of service can be made, the commission pointed out that excessively long hours of service had been found to exist by Division 5 and that those commissioners had decided that such conditions were dangerous per se and should not be permitted to continue. It is then asserted by the decision that this finding respecting the dangers inherent in conditions as they are at present was not challenged in the petition or on reargument.

"Nor was it denied," continues the decision, "in any way that regulations of the kind prescribed by the division would greatly improve these conditions. Nevertheless, we are urged by certain of the petitioning groups to stay the order, thus foregoing the improvement, until such time as the proposed comprehensive fact-finding scientific survey made by trained investigators may be completed and enable a more definite establishment of reasonably safe maximum hours of service. This position is contrary to that taken at the argument before Division 5 by counsel speaking for all of the interested labor organizations, and it is contrary, in our judgment, to sound public policy."

The commission also notes that the proposal for a scientific study of fatigue of drivers was not advanced at any of the hearings by any of the parties to the pro-

ceedings. On the contrary, says the commission, it was first presented in the report proposed by Examiner Snow. The decision also makes known the fact that since the report was issued, definite arrangements for such a fatigue study have been made with the Bureau of Public Health Service of the Department of the Treasury, and with the cooperation of the Department of Labor and other government agencies. Also, according to the commission, the Bureau of Motor Carriers will undertake further analyses of the accident reports, which the commission requires, for the light that they may throw on the effects of safety of operation of different periods of duty.

Cannot Consider Economic Grounds

Turning to the subject of maximum hours, the decision notes that the maximum hours of service requested by organized labor were 8 per day and 48 per week. The commission is of the opinion that this request was premised on economic and social grounds as well as on considerations of safety. "Thus," observes the commission opinion, "much was said at the argument before us about the need for lowering the maximum hours in order to lessen unemployment and to avoid appearing to give the stamp of government approval to hours longer than those found in labor agreements or those which have come more and more in recent years to be considered normal for factory, mining, and similar workers.

"There is no convincing evidence that there is an important unemployment problem in for-hire truck or bus operations, other than that attributable to the present depression, or that a shortening of the hours prescribed would necessarily increase employment opportunities. As Division 5 appropriately pointed out at pages 666-667 of its report, Congress did not intend that this commission should undertake regulation of hours of service for economic or social ends. If it had so intended, a definite legislative standard would have been laid down. Furthermore, the record contains no evidence whatever which would support such a finding based on such considerations. Opportunity was afforded for the presentation of such evidence, but none was submitted."

In answer to the argument of organized labor that the daily and weekly maxima prescribed by Division 5 would make it difficult to negotiate contracts for shorter hours, or for unorganized labor to hold the hours that it now has and that carriers have already used the regulations prescribed in the prior report as a means of lengthening hours, the commission declares that "considerations other than those with which we may properly deal enter here, though we look with distinct disfavor on carriers or others who use regulations premised on safety as a means of defeating employees' efforts to improve their economic status." The commission, however, thinks that it is questionable whether the practice has been or will be a serious one.

The commissioners do not believe that the fact that they have set a 60-hour maximum should interfere with the negotiation by organized labor of contracts providing

for shorter hours. To buttress this contention, the writer cites the fact that the International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers of America has negotiated contracts for its members which provide a basic work week as low as 48 hours in New York, Massachusetts, Illinois, and other states having large industrial centers, despite the fact that the laws or regulations of these states permit higher hours. These state maxima are, according to the commission, higher than the maximum fixed by the commission regulations.

The decision next discusses the subject of whether or not the rules and regulations set out in Division 5's report are those best suited to promote safety in the operation of motor vehicles. Division 5 permitted, as an initial step, 60 hours on duty in any week and 15 hours of duty and 12 of work in any period of 24 consecutive hours. In reaching these conclusions, says the commission, the division recognized, as did all parties, that there was no statistical or other information which would enable it to say definitely how long a driver can safely At the oral argument labor representatives stressed the 15-hour period and contrasted it with the almost standard 8-hour day.

"The evidence before us," declares the commission, "clearly does not suffice to enable us to conclude that a duty period as low as 8 hours in 24 is required in the interest of safety. We may call attention, as did the Division, to the contrast between factory operations, generally sustained in character, and the operation of buses and trucks, generally characterized by frequent stops for refreshments, gas, or rest, or because of conditions en-countered in highway and street traffic. The monotony or nervous and physical strain of driving such vehicles is alleviated by these breaks in the periods devoted to driving, and the period of actual work is considerably below the period on duty.'

Safety Angle Does Not Justify Shorter Hours

The commission does not find anything in the record to justify the change from the 60-hour maximum fixed for any one week so far as the safety angle is concerned. At this point, it is observed that much longer hours can be worked by railroad employees subject to the Hours of Service Act of 1907, and hours on duty in excess of 60 are permitted by the laws and regulations of all except one of the states which limit the hours of drivers.

We next come to a discussion of the only important change made in the prior report of Division 5, that of the daily limitations. The commission believes that the daily limitation should be expressed in terms of driving rather than in terms of work or duty. Also, says the commission, coupled with this change should be a provision which will assure each driver a sufficiently long period off duty in each 24 consecutive hours to enable him to

return to driving in a refreshed condition.

"It is our judgment," says the decision, "that work other than driving, if not continued for a long period, is a beneficial change from the monotony or strain of driving. However, the record in this proceeding shows that considerably in excess of 50 per cent of the drivers in the employ of common and contract carriers engaged in the transportation of property in interstate or foreign commerce do no work other than driving or only minor or incidental work. It also indicates that, on the average, the remaining drivers devote about 70 per cent of their daily work period to driving and 30 per cent to other work. The removal of the daily limitation of work will not enable undue prolongation of work in any period of 24 consecutive hours. Further assurance that such will be the case is provided by the 60-hour weekly limita-

tion of duty hours and the provision for consecutive relief from duty."

Eight Hours Rest After 10 of Driving

"The off-duty period has been set at 8 hours in each period of 24 consecutive hours. We shall require that such relief from duty be given immediately after 10 hours of driving, whether consecutive or in the aggregate, or within the period in which the 10 hours of driving are accumulating. Furthermore, the rules are so drawn that after every period of 10 hours of driving, 8

consecutive hours off duty must be given."

At the argument before Division 5, organized labor accepted the weekly limitation of 60 hours of duty, provided it was linked up with a daily limitation of 10 hours. "The rules we shall prescribe," continues the decision, "while in some respects less flexible than those drawn by the division, provide considerable more flexibility than would be possible if organized labor's position were accepted. Such flexibility in transportation operations is necessary to enable the rendering of service which the public interest requires. Nevertheless, as the great bulk of the trucking operations covered by these regulations are conducted on a 6-day basis, the practical effect of the weekly limitation is to provide a 10-hour day.'

Will Scrutinize Sleeper Berths

In the prior case Division 5 had concluded that there was no evidence in the record which would permit it to proscribe the use of sleeper berths in the face of the obvious need for and advantages of such equipment in the case of certain types of operations and in certain territories. The full commission sees no need for staying the Division's order in this respect, but warns that "it is contemplated that use of berths will be kept under close scrutiny to prevent their use solely for the convenience of the carrier and to assure that the berths in use are as adequate as possible under the circumstances."

The International Association of Machinists had asked the commission to prescribe for mechanics and machinists in the employ of common and contract carriers a maximum of 40 hours a week and 8 hours a day, with flexibility to meet emergency conditions. Division 5 had found that this request was based on economic and social grounds as well as safety considerations, and it did not feel that it had power to prescribe hours on other than safety grounds. With this view, the full commission con-

Emphasize "Initial Step"

Bringing the decision to a close, the commissioners de-clare that "We wish particularly to emphasize the fact that we regard the regulations prescribed herein as only an initial step. They meet an immediate need, go as far as existing information permits, and will provide experience in the federal regulation of hours on which changes, if subsequently proved to be necessary, can be made. The factual evidence now being gathered should be available before consideration is given to more restrictive regulations."

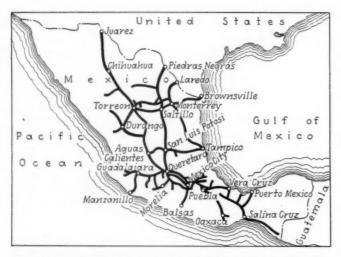
ONE OF THE FIRST PACIFIC TYPE LOCOMOTIVES in Great Britain, the "Royal Lancer" of the London & North Eastern, recently completed its millionth mile of operation since it was turned out of the railroad's shops in May, 1923. Listed as No. 4476 of the road's locomotive "family," the Royal Lancer paved the way for the present streamlined Pacific type locomotives, which haul premier trains throughout Great Britain.

Workers Take Over Mexican Railways

New officers appointed in practically all departments make sweeping changes for economy

N April 30, 1938, Eduardo Suarez, secretary of the treasury, in the name of the president of the Republic of Mexico, officially handed over the management of the most important Mexican railways—including the National of Mexico, the Interoceanic of Mexico, the Mexican Southern and the Mexican Oriental, to the workers' administration of the Mexican railway unions. This step involves a system of about 8,100 miles, of which 6,855 miles are standard gage, and is the culmination of many changes in management since President Cardenas of Mexico expropriated the railways by presidential decree on June 23, 1937.

For some years past, the federal government has owned 51 per cent of the outstanding stock of the National of



The Lines Under the Workers' Administration Comprise About 75 Per Cent of the Railway Mileage in Mexico

Mexico, the most important railroad in the southern republic, which comprises about 75 per cent of the total railway mileage in the country. The railroad extends from three gateways on the United States border to the Mexico-Guatemala frontier, serving such important ports as Tampico and Vera Cruz on the Gulf of Mexico and Manzanillo on the Pacific ocean. It also serves nearly all of the important cities of the interior, such as Mexico City, Puebla, Monterrey, Chihuahua, San Luis Potosi, Torreon, Guadalajara and Aguas Calientes, as shown on the map. After a number of lean years, 1937 witnessed a considerable upturn in income on the part of the railway system; the first nine months of that year produced an increase of \$14,996,258 in income over the same period in 1936. Gross income amounted to \$107,541,245 for the first nine months of 1937, compared with \$93,-544,987 in the corresponding period of 1936, an increase of 14.96 per cent. Large increases in freight, passenger and express revenues all contributed toward this improvement.

When the railways were turned over to the workers, the unions were called upon to elect a new head for the system, and the election of Salvador J. Romero was unanimous on the part of the 36 district unions that form the national railway workers' syndicate. As president of the governing board of the workers administration, and with the further title of general manager, Mr. Romero immediately made sweeping changes in personnel and practices, his first action being to cut his own salary from \$7,500 a year to \$2,000 a year. After the first few months of operation under the new administration, savings are claimed for the medical department of \$900 per day, and the reorganization of the legal department is expected to save \$5,000 per month. The department of control and finance has been entirely eliminated.

The new head of the Mexican railways has always been an active participant in union activities since entering railway service as a telegrapher in 1911. In 1915, he transferred to the mechanical department as stenographer and was serving as chief clerk in that department at the time of his appointment as assistant chief of the personnel department in 1933. He was promoted to assistant to the general manager in 1936. Mr. Romero was one of the organizers of the clerks' union and served as its president from 1926 to 1930.

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The Operating Staff

The law creating a workers' administration to operate the Mexican railways is specific as to the duties and limitations of such management. The workers' administration, according to this law, is in charge of a governing board of seven members, five of whom constitute a quorum. The Union of Railway Workers has elected the members to serve on this board, over which Mr. Romero will preside. R. P. Garza has been appointed assistant general manager and R. Nevares chief clerk. E. Teran Gomez and D. del Arco have been elected members of the board without specific assignments, while the following will represent the various departments named: J. Zertuche, accounting; F. Aguilar, track and construction; S. Fierro, mechanical; and F. V. Martinez, transportation.

Mr. Garza served as engineman and road foreman of engines on the Queretaro division until his appointment as assistant general manager; Mr. Nevares has been operator, station agent and assistant chief of the personnel department; Mr. Zertuche entered railway service in 1901 as a clerk, and has served as station agent and in minor positions in the accounting department; Mr. Aguilar entered railway service as a section laborer in 1893, later served as section foreman and supervisor, being appointed general roadmaster in 1915. Mr. Fierro entered Chihuahua shops as an apprentice in 1905, was appointed foreman in 1911, general foreman in 1913, and master mechanic in 1915. Between 1921 and 1928.



The General Office Building of the National of Mexico in Mexico City

he was employed in ship construction and railroading in the United States, and acquired a degree in mechanical engineering. In 1929 he was commissioned to reorganize the Yucatan railways, later returning to the National of Mexico as shop foreman, master mechanic and superintendent of motive power. Mr. Martinez served as operator, train dispatcher, chief dispatcher and division superintendent; Mr. Gomez was formerly a clerk, and Mr. del Arco was a train conductor.

The general manager, assisted by this governing board, is in charge of organization, operation, improvements, purchases, and the disposition of all revenues. The board, however, must secure written authority from the federal government before it can construct new tracks, remove existing tracks, abandon lines, pledge property, purchase other railways, sell lines to other railways or contract and place loans. All sums obtained from scrapped or retired material must be used exclusively for improvements or investments.

The members of the governing board, as elected by

the union, are to retain office for two years, and they may be re-elected at the expiration of that time. The general executive and vigilance committee of the union can, however, on preferment of charges, discharge any of the members at any time during their terms of office.

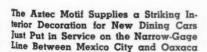
Agreed Operating Ratio

The workers' administration has agreed that the operating ratio must never exceed 85 per cent of the gross income; it is required to use at least 5.36 per cent of the gross income for additions and betterments, and to turn over to the federal government in monthly installments, 5.64 per cent of the gross income when it exceeds \$125,000,000 per year, or 3.64 per cent if it is less than that sum. Gross income, under the terms of the law, is the total revenue from whatever source gained by the administration as compensation for services rendered, less the net amount of taxes, the premiums on insurance, and the 2.5 per cent surcharge on passenger fares that is applicable to repairing the breakwater at Tampico. Any revenue remaining after all obligations have been fulfilled is to be divided into four equal parts, to be devoted to additions and betterments; to increasing the percentage of income paid to the government; to provide pensions for workers; and to create a reserve fund.

Government Supervision

The federal department of treasury and public credit has appointed two comptrollers to supervise the accounts of the administration in the interests of the federal government. These men have full authority to examine all accounts, books, documents and files, and they are also authorized to supervise all payments of money in order to insure that the federal government will get its proper monthly allowances.

The railways are required to transport government mail free from first to fourth class, and fifth class mail at a reduction of 50 per cent; but they are forbidden to grant any other rebates on freight rates or passenger fares, even to industrial enterprises or organizations in which the government is interested. Now that the lines are in the hands of the workers, the unions are enthusiastically behind the proposal to increase rates on products of mines by about 47 per cent and 10 per cent on all





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other commodities besides foodstuffs. President Cardenas is not in favor of these increases, but workers' committees are conferring with him in an endeavor to

induce him to change his mind.

Under the terms of the agreement, the administration must continue to pay all taxes, except income taxes, exactly as the railways have done heretofore. All employees are under the federal labor law and subject to the regulations in the federal workers' collective contract, which means that they have the same rights of appeal from the decisions of the governing board of workers now running the railroad as they had from the previous railway management.

Reorganization

Sweeping reorganizations to effect economies have been started in almost all departments, in addition to those mentioned in the early part of this article. Nearly all the officers of the track and building department who were not union members have been "suppressed," to quote from the official report. As an economy measure, the post of general treasurer has been discontinued, and the cashier placed in charge of the treasury department. In turning over the railways to the workers, the government retained the reserve funds that had been built up, and the governing board's chief concern is to recuperate the credit. The per diem arrears have been paid in part, and an agreement has been made with regard to the payment of the remainder, while some \$350,000 has been paid on account for locomotives and cars recently purchased. The workers have also agreed to effect economies in the tidewater terminals at Vera Cruz, and the administration of these terminals has been placed in their hands for a trial period of six months.

All of this has involved many personnel changes and these are expected to be frequent for some time to come. Among those which have already taken place are the following: L. G. Reyna was appointed temporary chief engineer, succeeding F. Sanchez, and, within a month, was supplanted by M. Ceballos, who holds the title of chief engineer at present. Lopez Alcar has been made head of the legal department with a title that translates as "power of attorney"; while Dr. A. M. Lopez, former assistant chief surgeon, and family doctor for two former presidents of the republic, has been appointed chief surgeon, succeeding Dr. F. G. Mejia. I. J. Terroba has been appointed general accountant and comptroller; J. R. Gamez has been appointed auditor of passenger receipts, and G. L. Espino has been appointed assistant general accountant. J. M. Campos has succeeded A. Amparan as superintendent of motive power and machinery, and J. C. Garcia has been appointed superintendent of the Queretaro division, succeeding Carlos Kramer, transferred to Aguascalientes as superintendent of the Center division, where he succeeded P. M. Hernandez, who has been appointed relief superintendent, with headquarters at Mexico City.

Belt Railway Rebuilds Clearing Classification Yard

(Continued from page 185)

it is claimed that the impregnated duck will give better

protection and render longer life.

When the reconstruction of the westbound yard is completed, this layout will include 4 pull-in tracks, 1 hump track, and 36 classification tracks, the rearrangement and construction of which will involve approximately 82,000 cu. yd. of grading; the removal of 75,000 ft. of track, and 136 turnouts; the raising of 41,000 ft. of track and the lowering of 7,200 ft. of track; the laying of 57,000 ft. of new track and the installation of 73 new turnouts and 7 lap switches, the installation of 1,550 rail ft. of retarders, 44 power switches, 3 control towers, 4 floodlight towers; and systems of drainage, signaling and communication comparable to those in the eastbound yard.

The planning of the yard improvements was handled under the direction of the management of the Belt Railway, of which A. N. Williams is president and general manager, in co-operation with representatives of the various owner lines; W. L. Fox, general superintendent, and C. L. Poole, superintendent, of the Belt Railway, serving as advisors concerning operating matters. The design and reconstruction of the yards were handled under the general jurisdiction of F. E. Morrow, chief engineer of the Belt Railway, and V. R. Walling, engineer maintenance of way, with A. B. Hillman, roadmaster, acting as field engineer. The retarders, switch machines and signals were furnished by the Union Switch & Signal Company. Railroad forces installed the flood-lighting system, communication systems, retarders, switch machines and signals, as well as the buildings and drainage system. The grading and track work was handled by Colianni & Dire Company, contractors, with C. B. Culp serving as field superintendent in charge.



Northern Pacific's North Coast Limited Hauled by Locomotive No. 5110 Near Livingston, Mont.

Railway Express Installs Novel Conveyor at N. Y. Terminal

Endless, sectional conveyor line mechanizes merchandise handling at large station without loss of flexibility

RAILWAY EXPRESS AGENCY, INC., has installed a merchandise conveyor system at its central sorting station in the sub-surface level of the Union Inland Terminal, New York City, which applies to the transportation field the principles of transit employed in large industrial plants and combines the flexibility and convenience of the usual fleet of platform-wheel trucks with the efficiency and mechanization of the automobile manufacturers' assembly line.

In the effort to devise a mechanical system of transit for sorting platforms, Railway Express engineers formulated the principle of an endless conveyor that can be cleared away, leaving the platform free for other operations. With these conditions in mind, they developed a plan comprising essentially an overhead, endless moving chain of the type used in assembly lines, to which are attached by towing hooks, at suitable intervals, standard "Mercury" platform trucks. An overhead chain system and drive were duly installed, a group of 80 platform trucks, already in service as hand trucks, were fitted with tow hooks and equipped with an upper deck, and the "hybrid" conveyor system was placed in service on February 8; it has subsequently operated without interruption. The low cost of this conveyor is due to utilizing as the carrying surface of the conveyor platform trucks which were already in service; new equip-

The conveyor system is used each business day approximately between 4 p. m. and 8:30 p. m. on the

ment cost was limited to the expense of the overhead

transfer platform of the Agency's most important New York sorting station to carry outbound merchandise from street pick-up vehicles which unload at one side of the platform to waiting transfer motor trucks lined up on the other side of the 98-ft. platform, which operate to the various railroad stations. Using the conveyor system, the station staff ordinarily unloads 25 to 30 large pick-up vehicles at a time, makes a 16-way sort and loads about 150 transfer street trucks during each daily period. The entire operation is carried out without the placement of packages on the station platform and without the use of hand wheelers, except for very fragile or bulky shipments. Since installation of the system there has been a 20 per cent saving in unloading time at the tailboards of pick-up vehicles, it is estimated, and the bulk of the merchandise has been reaching railroad terminals approximately 40 min. earlier than previously. Every shipment carried by the conveyor is sorted and placed in 2 to 3 min. after it is unloaded. Due to elimination of piling on the receiving platform, that platform is empty and clear immediately after the last pick-up truck has been unloaded.

During a five-day period at the end of February, at the peak period of each day, 80 pick-up vehicles were unloaded each hour and an average of 8,974 pieces of merchandise handled per hour, or almost 150 pieces per min. Upon occasion, the system has handled 12,500 pieces an hour. As each six-ft. platform truck with its double deck has 36 sq. ft. of surface, the total capacity may be varied from 270 sq. ft. to 540 sq. ft. per min.



Placing Shipments from Pick-Up Vehicle on Conveyor Trucks at Curve

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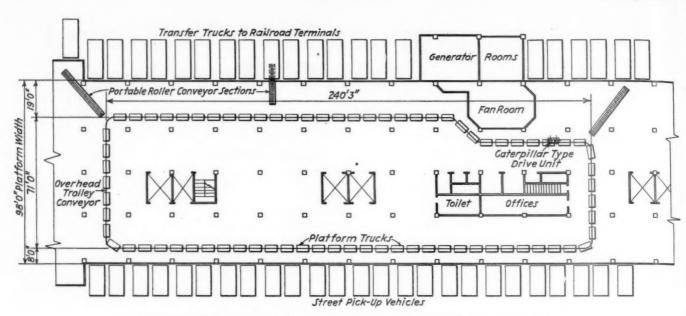


Diagram of the Express Agency's Sorting Platform Showing Lay-Out of Conveyor System

Each night, the system transfers and classifies from 25,000 to 30,000 pieces of merchandise during a four-hour period. Furthermore, in spite of the comparatively rapid handling, all but the most fragile shipments may safely be conveyed; there have been reported only two breakages since installation—involving two bottles of beer.

The handling process is simple. As each piece of merchandise is withdrawn from the street van, it is marked with the designating number of its transfer route and placed on either deck of the nearest passing conveyor truck, where it is placed so that the crayon mark may be seen instantly by the loaders on the other side of the platform, who, two or three min. later, place the package directly on the proper street vehicle. Should a package be missed in this latter "spotting" operation (a rare occurrence), it remains on the platform truck and merely rides the circuit again, to be taken off by the unloader at the proper spot; this illustrates the advantage of "endlessness." This round trip takes only 8 min. as a maximum. Should it be necessary to withdraw a platform truck and its load from the conveyor, it can be taken out while the system is in operation by merely releasing the tow-hook; it then becomes an ordinary hand When the last transfer vehicle has rushed off to its rail-head, most of the platform trucks are disengaged from the over-head chain and are used as handwheelers to handle inbound business the next morning, which is not yet performed by the conveyor method. At the same time the platform is completely cleared for the hand transfer work.

The 4-in. pitch rivetless overhead chain which travels about 7 ft. 6 in. above the platform level, weighs 3.25 lb. per ft. and is suspended from a 4-in., 7.7-lb. I-beam track on ball-bearing trolleys. At 8-ft. intervals on the chain, which is 640 ft. long, there are placed eye hooks, to which are hooked the chains for towing the platform trucks. The whole is driven by a 5 hp., 220-volt A. C. electric motor through a Caterpillar-type drive with a Reeves' variable-speed transmission. Since each platform truck weighs approximately 500 lb. empty and 600 lb. loaded, the average weight in tow by the chain adds up to about 75,000 lb.

The platform trucks, of which 78 to 80 units are regularly attached to the overhead chain, are fitted with hooks at each side of one end, to which are engaged the ends of

the split tow-chain suspended from the over-head moving chain. In this way, the trucks are pulled along the line of the conveyor without interruption or aid, negotiate four 90-deg. "corners" on the circuit and, in one place, "detour" around a large pillar situated along the regular circuit route. The ease with which this conveyor thus negotiates turns without shifting the lading is an important feature for terminal operation.

The chain, which may be operated at a speed varying from 60 to 120 ft. per min. is ordinarily operated at about 84 ft. per min. or 0.95 m. p. h. which, after ex-



The Conveyor Affords Maximum Loading Space Without Loss of Flexibility

perimentation, has been determined to be the most suitable rate for this terminal. At this speed, each platform truck completes the circuit in 8 min., but since, if properly handled, no package is carried the whole distance, the average time of each package in transit is from 2 to 3 min., and the maximum is 6 min.

signed, manufactured and installed the overhead chain and drive. C. G. Peterson, chief engineer, Railway Express Agency, Inc., formulated the principle and adapted the platform trucks for use in the system.

Loading Space Doubled

Since a specially-designed, flexible upper deck has been placed on each conveyor truck, about 4 ft. above the truck floor, the loading space available has been doubled on each unit. Furthermore the trucks are placed as close together on the conveyor as clearance at curves will permit. All in all, it is estimated that about 370 sq. ft. of loading space passes the tailboard of each street vehicle per min.

The chain conveyor has been placed as near to the tailboard ends of the platform as loading and unloading requirements will permit, so that handling-distance by employees is reduced to a minimum. For handling packages from street vehicles spotted at a distance from the chain circuit, gravity roller conveyors of the desired length may be used to supplement hand loading and unloading; this, however, is not a usual practice at Inland Terminal.

The only additional device necessary for operation of the conveyor system was the installation of six emergency switches placed at convenient points for stopping operation of the chain. These are clearly designated by red markers and lights.

Railway Express Agency, Inc., is preparing to apply for a patent on a conveyor system possessing the features of the Inland Terminal installation. The application proposed will describe the system as essentially a flexible, removable, endless, sectional, single or multiple-deck conveyor, without inserting tracks or moving platforms, which can be readily detached "even in motion." The Jervis B. Webb Company, of Detroit, Mich., de-

California Tours Successful

HE California Parlor Car Tours Company, an affiliate of the Southern Pacific, which is headed by the former assistant to chief engineer of that railway, is entering its 15th year of successful operation. Arrangements for these tours may be made in connection with round-trip tickets to California, and they provide for seeing portions of that state not otherwise available to rail passengers. An allowance is made in the fare for passengers holding rail tickets between San Francisco and Los Angeles.

The featured attractions of these rail-highway tours are a three-day, 525-mile Coast-Mission Trails Tour, and a recently inaugurated four-day, 825-mile tour which also includes Yosemite.

These two principal tours may be started from either San Francisco or Los Angeles, and the entire trip is made in the same modern, luxurious motor coach, with overnight stops at the best hotels.

The Coast-Mission tour follows the coast closely, including a visit to the Monterey peninsula, to the Santa Cruz big trees and also includes an extensive tour of Santa Barbara. The Yosemite tour includes all these features, plus a trip to Yosemite National Park.

The tours are on an all-expense basis, with an experienced conductor in charge, and under the management of railway officers have established an excellent record for safety and comfort.



Scenic Vista on the Monterey Peninsula Visited by California Parlor Car Tours

Wage Negotiators Still At It

Railroads' financial plight and its relation to employees subject of discussion at meetings

In mages demanded by the railways, which began at Chicago on July 18, entered the second week with each side maintaining its original position—the railroads continuing to demand a 15 per cent cut and the employees continuing to refuse to accept any reduction and continuing to request the carriers to withdraw their demand. As a result, the meetings are being devoted to the introduction and refutation of statements regarding the railroad situation. On July 22, after a session with the trainmen, H. A. Enochs, chairman of the Carriers Joint Conference Committee, told representatives of the press that "we expect a mediator within 10 days." A. F. Whitney, president of the Brotherhood of Railroad Trainmen, when asked by the press if he concurred in this statement replied that, "mediation had not been mentioned in any of the meetings."

At the Whitney Meetings

Meetings of the Carriers Joint Conference Committee and the Brotherhood of Railroad Trainmen, which organization resigned from the Railway Labor Executives Association in June, 1937, and which elected to negotiate the wage reduction independent of the labor association, began on July 18 and convened each morning for two hours excepting on July 21 and 23. Thereafter each group was met on alternate mornings. At these meetings, as at those with the Railway Labor Executives Association, the Carriers Joint Conference Committee has contended that because of the present financial condition of the railroads, wage reductions are essential. Mr. Whitney maintains the position that the employees are entitled to a "living" wage and should not be forced to work for lower wages, regardless of the financial condition of the railroads. He has also taken the position that the country is on the verge of a business boom which will increase carloadings and improve the financial position of railroads to such an extent that wage reductions will be insignificant.

At both meetings the carriers committee used the Rutland as an example of the peril that faces all other railroads and their employees. This railroad, which operates 407 miles of line in Vermont and New York and employs 1,300 people, has asked permission to abandon its entire mileage because of inability to meet expenses. Its loss at present is approximately \$2,400 per day. In this case the district court under whose jurisdiction the road is operating, stated it could not disregard the wage agreement between the railroad and its employees and reduce wages. Because procedure under the labor act to reduce wages 15 per cent as proposed by the trustees will take several months, the court directed the trustees to pay 85 per cent of the wages now and 15 per cent "when they get the money."

Says Rutland Not Typical

This example was refuted by Mr. Whitney who contended that the Rutland situation was not typical of all

railroads, representing only 1/100 per cent of the railroad picture and that if isolated cases are to be cited by Mr. Enochs he should also mention such examples as the railroads that have paid dividends amounting to 150 and 1,100 per cent of the value of their common stock so that he would not be accused of misleading the public. He reminded Mr. Enochs that the Rutland is not represented by the Carriers' Joint Conference Committee. He also reviewed the purchase of the stock of the Rutland by the New York Central in 1905, the sale of one-half to the New York, New Haven & Hartford in 1911, and the "calling off of a deal" for the sale of the remaining stock to the New Haven.

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Mr. Enochs also offered loss of traffic due to unfair competition of buses and trucks as a reason for wage cuts. Mr. Whitney refuted this argument by charging that, "It is manifestly unfair for the carriers to cry about unfair competition when the records show they owned a controlling interest in 128 bus and truck corporations in 1936, their investment being \$43,109,000. They collected 55.3 per cent of all dividends paid by these companies." He also accused them of "Taking off freight and passenger trains and paralleling them with buses and trucks."

Whitney's charge, made earlier in the negotiations, that the railroads had spent \$189,000,000 for propaganda according to the Wheeler committee report, was attacked by Mr. Enochs as untrue because the money was spent for the maintenance of various bureaus. Mr. Whitney retorted that the figure was too low since it did not include money donated by railroads to schools, including Harvard and Yale, various foundations, chambers of commerce and taxpayers' associations for carrying on work beneficial to railroad interests. He said that \$142,000,000 was spent by the railroads to "put over" the Prince plan of consolidation.

Dissemination of "Propaganda"

The dissemination of "propaganda" became the subject of heated discussion with the Whitney group on July 26. Mr. Enochs charged the trainmen with parading past evils of the railroads at the meetings and broadcasting them in the trainmen's publication and others for the purpose of turning employees against management. Mr. Whitney took the position that the railroads were past masters in the art of propagandizing, and that the trainmen were merely following an example set by the railroads and the Railway Age. He said that the trainmen had the right to uncover the "skullduggery" employed in railroad financing which reacted to the disadvantage of employees. He realized, he said, that a review of the evils makes the railroads uncomfortable, but since it is the object of the trainmen to counteract the railroads' propaganda of fear and intimidation, the railroads will have to chafe under the scrutiny. "Of course," he said, "a withdrawal of the demand for a reduction would stop the exposure." One of the railroads attacked by Mr. Whitney was the New York, New Haven & Hartford which he charged was "looted by a

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group of bandits who had no conscience," during the period from 1903 to 1913.

At the Harrison Meetings

When the Carriers' Joint Conference Committee met with the other brotherhoods, excluding the American Train Dispatchers Association and the order of Sleeping Car Conductors which were not presented with a demand for wage reductions, Mr. Enochs, beginning on July 20, outlined the desperate financial condition of the railroads as he had done at the trainmen's meetings and also presented the Splawn report and the compilation of the Carriers' Joint Conference Committee, "Railroads and Railroad Wages." He said in part: "Last year you pressed your request to a conclusion, which resulted in wage increases, increases that the Carriers' Conference Committee were skeptical about granting, for the reasons pointed out to you during the discussions, that the carriers had only so much money coming in and any increased cost had to be borne in some fashion and the way to get around the increased cost was not to have so many people on the roll. All that was said at that time about the effect the increase, if granted, would have upon employment has since been borne out by what has actually taken place. At that time we pointed out to you that the railroads have only one source of income, that is from the general public for service performed; and to increase wages could have only one result, that is, work then being done would have to be suspended and this happened; the cycle of lay-offs began which resulted in a force reduction of 216,029 people between April, 1937, and April, 1938. This reduction became more marked following the wage increases. Our income for the first six months of 1938 is below that of the corresponding period of 1932. We are worse off now than we were when you agreed to the voluntary deduction in 1932.

'So the burden of increased cost due to the wage adjustment, as well as increased cost brought about by social security legislation, retirement board legislation, increased taxes, increased cost of materials, etc., has been too much for the carriers to bear and the result is today that the carriers of this nation, almost without exception, are facing disaster. When times were good and carriers were making money, although not all of them, and you asked for wage increases, your requests were not only given sympathetic consideration, but were granted, so that the employees could share in the temporary prosperity of the carriers. When you requested wage increases we met you on a friendly and fair basis. We have always met you on a friendly and fair basis and we think that is the only basis for a sound relationship that could and should exist between the carriers and their employees.

Advocates of High Wages Do Not Have to Meet Payrolls

"Addresses have been made in Congress—both Senate and House—opposing any wage cuts, in which the carriers were criticized for attempting to secure a wage cut. Other public men have spoken, either at your wage rallies or at other meetings, condemning the carriers for seeking a wage cut, urging you to hold fast and not take a wage cut. Not one of these men has to meet the railroad payroll and so far as I know any payroll at all, and not one of them is in a position to suggest to the carriers where they can get the money to meet the payrolls as they become due.

"The burden of these statements is that the scale of

wages on the railroads is now as low as it can be, that railroads must not reduce these wages in order to avoid important railroad bankruptcies. When a railroad goes into bankruptcy it keeps right on operating, whereas an unprofitable competitive enterprise is likely to go out of business. This gives railroad employees a sense of security in their jobs, but the security is not as strong as it might be, and not as great as before competitive forms of transportation began to take business from the railroads. The worse the financial condition of the railroads becomes, the less there will be left of the railroads in the end. That means a sharp drop in railroad jobs. The tighter the money situation becomes the more the carrier curtails its function. Branch lines are abandoned and scrapped; runs are taken off; enginehouses and shops closed down, and what is taking place now will be accentuated if there is a general downfall of the railroads. If, however, the railroads can work their way through the present financial stringency in the next few months, thousands of jobs will hinge upon the success the railroads may have in pulling through without bankruptcy. A third of the mileage is already in receivership and the deficits now suffered by the rails are far greater than at the bottom of 1933.

"The railroads are a sick industry; they have had to reduce their employees from 1,779,275 in 1926, to 941,-094 at the present time. What has caused this great decrease in employment? Outside competition. And what caused the outside competition? Convenience and cost. And what caused this situation? The increased cost of producing transportation, brought about mainly by the wage bill. Of all employers the carriers have by far the greatest amount taken out of each dollar that is taken in to pay out in wages. I told you last year several times that we had reached the saturation point in our wage increases. You did not believe me then, but I hope you will believe me now."

Says Employees Not Responsible For Interest and Dividends

At the end of Mr. Enochs' presentation George M. Harrison, chairman of the Railway Labor Executives' Association and president of the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, branded the compilation "Railroads and Railroad Wages" as inaccurate and an intent to mislead the public. He refused to accept the data in the booklet as a basis for negotiations.

This group of brotherhoods has taken the position that the present plight of the railroads is due to past performance and that an industry which has paid \$14,000,-000,000 in dividends and bond interest to "capitalists" during the last 17 years should not now call upon its employees to donate part of their wages so that such payments can be continued. In a statement to the press Mr. Harrison said, "the wages of railroad workers are not high and the present problem of the railroad industry cannot be cured through a reduction of wages. According to the Interstate Commerce Commission records, the average annual earnings of railroad employees in 1937 were lower than they were 18 years previous in 1920. The actual hourly wage of some railway employees is utterly indefensible, falling below 20 cents per hour. Rates of 18 cents, 191/2 cents, 211/4 cents, 221/2 cents, and 23 cents an hour are being paid to semi-skilled employees engaged in the maintenance and upkeep of the railways.

"Insistence upon this wage reduction on the part of the railways is doubly harmful at the present time in view of the widespread evidence of business recovery

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and restored confidence. For years Big Business has kept up a running plea for a restoration of confidence. Now we have it. Last week's carloadings of freight hit the highest level of any week for the present year. Our wheat crop is the second largest in the history of the country. Evidence of recovery and predictions of continued recovery are to be found on all sides. Certainly a movement such as this on the part of the railways to effect a national reduction in the wages of 900,000 men can contribute nothing to the social and economic advancement of the nation, nor to the interests of the railways themselves. With the optimism that now prevails, the railways are in a splendid position to make a patriotic and valuable contribution to the welfare of the country through an immediate withdrawal of their ill-advised wage reduction notice."

Mr. Harrison contended that since 1920 capital has not been called upon to contribute to wage increases for whenever wage increases were granted employees, freight rate increases which more than offset the wage increases were also granted the railroads. Mr. Harrison contended that the capitalization of the railroads should not be the determining factor in the establishment of wages, for the outstanding stock and bonds of a large number of railroads are in excess of their true value. He used the Interstate Commerce Commission's figures of valuation in contrast to the outstanding stocks and bonds of the railroads. Also in support of this contention, he said he could purchase the Baltimore & Ohio for 21 cents on the dollar, the St. Louis, San Francisco for 10 cents on the dollar, the Minneapolis & St. Louis for 5 cents on the dollar, the Minneapolis, St. Paul & Sault Ste. Marie for 5 cents on the dollar, and the New York, Ontario & Western for 3 cents on the dollar.

He also contended that the wage increase granted last year did not cost the railroads additional money, since by laying off employees, they were able to reduce the total payroll. The increase, he said, should have increased the payroll from the level of \$164,000,000 a month before the increase to \$172,000,000 a month after the employees received the increase, but instead the payroll increased to \$169,000,000 in August and dropped to \$163,000,000 in September.

Recommends Introduction of Bill

On July 25 Mr. Harrison continued to attack the financial structure of the railroads. He said that the time has come for rationalized transportation—for a policy under which the financial structure would be corrected, competition would be controlled and labor and capital would be treated fairly. He recommended that Senator Wheeler introduce such a bill in congress.

He also blamed the railroads for the failure of congress to enact railroad relief legislation because they filed notice of a 15 per cent reduction just as the president's committee was making progress with a program that would react to the good of the entire country and because some railroads would not support the measure since they did not want to lose control of their financing which, under the make work program would be supervised by the R. F. C.

He also charged that the railroads "have been floating bond issues for expenditures made out of profits for improvements in the plant and paying out the proceeds of the bond issues as dividends to stockholders." He said that since 1920 the B. & O. has issued \$381,000,000 of bonds for the purpose of getting control of other railroads and for refinancing matured bonds, while the Chicago & North Western has issued \$129,000,000 since

Non-Inflammable Colored Insulation for Wires

SYNTHETIC compound called Okoseal, providing a flexible, leather-like insulation and sheath for the electrical and mechanical protection of single conductors or cables, especially for use in instrument cases and towers, has been developed by the research division of the Okonite Company, Passaic, N. J. This new insulation, which is said to be non-inflammable yet moisture-resistant, retains its good mechanical and electrical properties even when it is exposed to the action of oils and chemicals. It can be furnished in a variety of distinctive colors, and, since it requires no outer braid, is especially adaptable for use on switchboards, interlocking machines, and in other locations where fire risks must be reduced to a minimum.

Odds and Ends ...

Unique Model

Andrew Kernander, car cleaner for the Boston & Maine at Saugus, Mass., is a locomotive model builder, which is nothing unusual these days. But Kernander is highly unusual in that he builds his models out of matchsticks. On his latest creation, a model of B. & M. engine 3689, he used 3,472 matchsticks.

Roses for Hanley

W. S. Hanley, chief engineer of the St. Louis Southwestern, makes his headquarters in Tyler, Tex., in the vicinity of which a third of all the roses grown in the United States are produced. As a past-president of the Chamber of Commerce it is Hanley's duty to escort the Rose Queen at the annual rose festival in Tyler and he manages his duties very well. Incidentally, the railway secured the equivalent of 179 carloads of rosebush slips out of Tyler last year.

Three-Level Crossings

This department has listed several three-level crossings from time to time, and the latest addition to the roster is unique in many respects. It is situated at Eleventh street and West Jefferson avenue in Detroit. The first level is the Michigan Central tunnel, which later goes under the river to Canada. Two sewers pass between this tunnel and the street level where the M. C. Jefferson avenue house tracks are located. The tracks of the Detroit Union Station are carried on a steel viaduct above Jefferson street, thus completing an unique three-level crossing.

Conscience

Sir Bernard Lomas-Walker is an eminent British statesman now, chairman of his county council and bearing other dignities modestly. However, for 37 years, his conscience has been bothering him and recently he broke down and told all. It appears from his confession that, in 1900, when he and other young blades were celebrating a victory in the Boer war, he appropriated a large bell that was used at the Harrogate station of the London & North Eastern in announcing the arrival and departure of trains, and now wanted to return it, so that his conscience might be clear. C. M. J. Jones, divisional general manager for the railroad, to whom the crime was confessed, took a lenient view of the matter. In fact, he returned the bell to Sir Bernard, with this inscription on it: "Captured from the Harrogate railway station in 1900 by Sir Bernard Lomas-Walker, this bell is legally presented to him by the L. & N. E. in 1937, the year of his knighthood and chairmanship of the county council."

Handling the Mail

By M. I. Goldsmith*

ONTRARY to general opinion, no contract exists between the government and the railroads for transporting mail. An act of Congress requires the railroads to carry mail on any train operated, and in the manner designated by the postmaster-general through the office of the second assistant postmaster-general and his division superintendents. The law does not require that train schedules be adapted to the handling of mail, but, in a spirit of co-operation with post-office department officers, we often do adjust our schedules to fit the needs of the mail service.

Mail must have preferential handling at all times, and must be carried on first sections of all trains operated. If, for any reason, a train carrying mail is stalled, and a following train is to be run around, the mail on the stalled train must be transferred to the other. When, because of wrecks, washouts, slides or other interruptions, delays occur, first consideration must be given to the transfer and forwarding of mail.

A train may pull into a station with the head-end cars well loaded. If mail, baggage, express and milk are to be loaded, the mail must be handled first. If any space remains, other traffic may then be loaded. A train may not depart from a station until all the mail is loaded. If a train is ready to depart and mail is in the process of being trucked from some other part of the station property, the train must wait for the mail.

Railroads Furnish Cars

Another important requirement in connection with performance of mail service is the furnishing of mail cars called Railway Post Office cars. The government specifies the size of cars and designates how they shall be constructed, lighted, heated and ventilated. The specifications provide for steel construction throughout, conforming to certain strength and weight-carrying capacity. The number, type, size and location of doors, windows and lights are designated. The cars must be electrically lighted, equipped with fans, heating facilities, steam cookers, hot water, sanitary water coolers and washing and toilet facilities. They must be maintained in 100 per cent operating condition and be kept clean and sanitary.

Necessities of railway mail service differing on various lines and routes, require mail cars of different sizes. For example, on through transcontinental trains where the volume of mail is heavy, 60-ft. cars may be required, on which the rate of pay is 39 cents per mile. On lighter runs, cars containing 30-ft. mail compartments are used, with a rate of pay of 21½ cents per mile. On some runs, cars containing 15-ft. mail compartments are used, at 14½ cents per mile.

Railroads are compensated for the transportation of mail on the so-called space basis, which has been in effect since 1916. Compensation is fixed by the Interstate Commerce Commission, based on the amount of space required in mail cars and baggage cars for the accommodation of mail. Although it is called a space system, it is in reality a count system, being based on tests made regularly to determine the average number of sacks that can be accommodated in a given cubical space.

The space basis and accompanying rates of pay are divided, for general information of the layman, into two

* Assistant mail and express traffic manager of the Southern Pacific. From an address before the Pacific Railway Club on February 10.

classes—one, for the rental of mail cars at fixed rates per mile, and the other for space provided in baggage and storage cars. Mail which does not have to be worked or distributed enroute by railway mail clerks is placed in baggage and storage cars. The space used for carrying this storage mail is called storage space, for which the government pays the railroads at fixed rates per cubic foot for each mile carried. Storage mail is considered to be in the custody of the railroad, and is loaded and unloaded at stations by company employees and handled enroute by train baggagemen. They are required to count and check each sack carried, including those received and dispatched at each station.

One of the really sad features, from the railroad standpoint, pertaining to our dealings with Uncle Sam is that part of the law which permits him to "spank" us if we violate his regulations, or if we become careless or negligent in handling his mail. While his disciplinary measures appear at times to be a bit harsh, and some of the regulations seem to be somewhat one-sided, years of experience must have proved their necessity, as shown by the efficiency attained by the Post Office Department.

The disciplinary measures consist of fines ranging from \$5 to \$5,000. The collection process is simple—just deduction from our mail pay. A few of the offenses for which we may be penalized are: Failure or refusal to carry mail or furnish mail cars as directed; failure to spot a car at the time designated; coupling or bumping a car too roughly while switching; failure to heat cars properly and keep them clean, and to furnish ice, lights and water; missending of mail sacks, i.e., failure to put off mail at proper stations; failure of an engineman to sound his whistle on approaching a station, which serves as a signal to the mail clerk to be prepared to exchange mail; failure of the train to wait until all mail is loaded; failure to transfer mail properly at wrecks or washouts; failure to forward mail on the first train or first sections of trains; and putting aside mail for the accommodation of passengers.

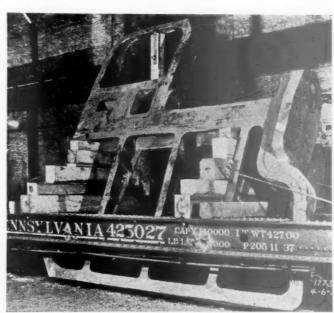


Photo by Bethlehem Steel Co.

The Floor Level of the Car was Ignored When these Castings, Shipped from Steelton, Pa., to the Bethlehem Shipbuilding Corporation at Fore River, Mass., Were Loaded. The Clearance from the Top of the Rail was 5 in. and the Load Towered 15 ft. 8¾ in. above the Rails

Communications . . .

The Railway Age cannot publish letters from readers who do not supply their names and addresses. Names of correspondents are not published, or disclosed even upon inquiry, unless the correspondent consents. But they must be given us as an evidence of good faith.

Managements Should Try To End "Mileage Hogging"

RUSSELL. Ky.

TO THE EDITOR:

That was a splendid editorial in the July 16 Railway Age entitled "Mileage Hogging Should Stop."

Now that some of the older men are fighting the railway managements so hard, even to the extent of asking the government to refuse loans to the railway companies, don't you think that the managements could cement an even stronger bond of friendship between them and the young men, by notifying the brotherhoods of their desire for a downward revision of the mileage regulations?

The managements could follow this by widespread publicity in the newspapers or by sending a letter to every furloughed man, stating that inasmuch as the railways knew that the young men could expect no help from the brotherhoods, the managements had decided to try to help their younger employees themselves.

This would be of no expense to the railways, the public would instantly approve of it, the furloughed men would never forget it and the only men who would get sore would be a few employees who "wouldn't give the railways the whiskers from yesterday's shave" anyway.

C. A. CUNNINGHAM

Says Lumber Industry Dwells in a Glass House

DALLAS, TEXAS.

TO THE EDITOR:

Referring to the letter in the July 16 Railway Age signed by Robert G. Kay, lumberman, attacking certain policies of the railroads and what they should do:

I was in railroad service for 18 years, serving both trunk and short lines, and one very short line, a proprietary industry of a lumber company, and I am aware of the fact that there is room for improvement in the management of our railroads, but it gets under my hide when a lumberman wants to be the doctor.

I am neither for nor against organized labor. I am for fair and just treatment of both employee and employer, and I do think the so-called Big Four brotherhoods took undue advantage of the railroads in their demand for an increase in pay in 1937, but if you want to see labor at its worst, just one jump ahead of peonage, then you take a good look at the lumber industry.

The working conditions, housing conditions, hours on duty and rates of pay, all need some attention for their betterment. Old worn-out houses with no sanitary appointments, ten hours a day, six days a week and pitifully low rates of pay. Until a law was passed some twelve years ago in Texas the saw mills never paid their employees in U. S. cash. They paid them off in metal tokens good for trade at the lumber-owned-and-operated commissary or general store.

Then Mr. Kay talks about passes. If the railroads had in their cash registers fifty cents on the dollar for the free passes they have issued to lumber-owned railroads, most of them could come

out of the red and tell Jesse Jones where to go. I worked for one short line that had 6.5 miles of main tracks. They had ten officials listed in the Official Guide and, with families included, carried fifteen annual passes over each of certain railroads. If the trunk lines didn't come through with the passes when requested, then I got absent-minded about those particular railroads when it was my time to bill out a car of lumber.

I know what I am writing about. I handled the pass requests and the routing, and the railroads were forced to issue passes for people working 100 per cent of the time for the lumber company, but had their names on the payroll of the railroad. Sometimes the pay for them was merely credited to their account and when one certain road ceased operation they owed three or four officials \$1,000 in such salaries, but what did it matter; they had been riding on passes.

If you ask me, the railroads have been playing Santa Claus to the lumber people for a long time, and when it comes time for the railroads to be shot at I want some one other than a lumberman to do it.

P. R. WALSH

Government Should Limit No. of "Days" in a Month

EL PASO, TEXAS.

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TO THE EDITOR:

In the July 19 issue of "Labor" is an article under the heading "Tell the Truth about Rail Wages," in which they accuse the carriers of broadcasting misleading propaganda; it would be hard to find any more misleading propaganda than that which is being printed in "Labor."

I shall confine my remarks to the train and engine service, as I am engaged in engine service myself.

To begin with, "Labor" claims that only a tiny fraction of railway employees are making from \$250 to \$300 a month, and that these are engaged in moving "crack" freight and passenger trains, where unusual skill and long experience is required. This is absolutely untrue, since we are paid by weight on the drivers of the locomotives, regardless of whether the locomotive is pulling a drag or "crack" train; and furthermore there is no unusual "skill" or "experience" involved. The passenger runs are held by the men with the greatest amount of seniority, while freight trains are operated by crews working first in, first out. Engineers are making between \$300 to \$400 a month instead of the \$250 to \$200 quoted by "Labor," and firemen are making between \$250 to \$300 a month on pool freight and passenger

"Labor" insinuates that the railroad employees walking the streets, are there through the fault of the carriers, whereas, as far as the transportation brotherhoods are concerned, a large number of men walking the streets are there through the hoggishness of the "old heads," who are not satisfied with working every day, but have to work as high as 38 days a month in freight service, and 48 days a month in passenger service. One hundred miles constitutes a day's work.

I should like to know why the government, if it is really sincere in wanting to put people to work, tolerates a condition like this, when by restricting these men to the same number of working days per month as the rest of the laboring classes in other industries, thousands of men now idle could be working and making a good living for themselves and families and thereby really help to increase the purchasing power in the country.

The government regulates the hours we are allowed to work per day. Surely it might regulate the days per month we work also, especially as it means putting thousands of men to work on the railroads of the country.

P. D. ANDERSON

NEWS

Wheat Receipts A Record at K. C.

9.714 cars of winter crop come to market in July 8 week-No hitch in handling

New records are being established by the railroads in the handling of the winter wheat crop, now moving to market in great volume, according to records compiled by the Car Service Division of the Association of American Railroads. The movement of winter wheat from Kansas, Oklahoma and Texas has now passed the peak. At the present time, however, there is a heavy wheat movement from Northern Missouri, Nebraska, Iowa, Illinois, Indiana and Ohio. The same railroad organization that directed the winter wheat movement in the Southwest has now moved into these sections. As the crest of the movement extends northward cars will be released and made available to the spring wheat loading roads to the extent necessary to meet their requirements.

Handling of winter wheat this year at Kansas City, Mo., the largest and most important grain market in the United States, has set new high records. Receipts at that point in the week ending on July 8 totaled 9,714 cars, the largest number on record. The previous record, established last year, was 9,009 cars. Over the Fourth of July week-end, 3,605 carloads of grain were received in Kansas City, the highest number for any corresponding period on record. In the following week, 8,943 carloads of grain were received and, through overtime work at mills and elevators, 8,803 cars were unloaded, the largest number to be unloaded at that point in any similar

More than 32,000,000 bushels of winter wheat were received in the week ending on July 8 at Kansas City, Wichita, Salina and Hutchinson, Kan.; Enid, Okla., and Fort Worth, Texas. This was almost Fort Worth, Texas. equal to the entire winter wheat crop of either Missouri or Texas. At Forth Worth in the week ending on July 8, 2,519 cars of Other rewinter wheat were received. ceipts that week included 2,581 cars at Hutchinson; 2,070 cars at Wichita; 1,500 cars at Salina, and 1,643 cars at Enid.

These records in the handling of this year's winter wheat crop, estimated by the Department of Agriculture on July 1 at 715,425,000 bushels compared with 685,102,-000 bushels last year and an annual average of 546,396,000 bushels in the past ten-years, is according to the Car Service Division,

a tribute to the efficiency of railroad operation and a high degree of cooperation between the organized grain trade and the railroads.

The movement from the Southwest of this record crop by the railroads serving that territory was coordinated through the Car Service Division of the Association of American Railroads. Prior to the harvest, more than 40,000 box cars, especially suitable for grain loading, were concentrated in that territory. Western and southwestern owned box cars were ordered to their home lines by the Association and this supply was later augmented with box cars from many of the eastern and southern lines in order to make certain that the crop would be moved speedily to market.

Prior to the movement of the winter wheat crop, terminal grain committees composed of grain trade and railroad representatives appointed by the southwestern and Trans-Missouri-Kansas Shippers Advisory Boards were set up at the principal wheat markets. These committees exchange daily reports showing the volume of receipts, cars ordered to various consignees, and the number released daily. In the event of any delay in handling cars, prompt action is taken locally to speed up the movement.

Represented on the grain committees are members of the State Grain Inspection Department, who must sample each car as it arrives at the market before it can be unloaded. To accomplish this, the state inspectors have to be in the railroad yards before daylight to begin drawing samples which are then sent to laboratories for analysis and grading. The volume of this work says the announcement, during the peak movement is tremendous and the services rendered by the Inspection Departments of various States in expediting the handling of grain this year have been invaluable.

While the movement of spring wheat so far has not started, the crop this year is estimated at 251,987,000 bushels compared with 188,891,000 bushels last year. In the past ten years, the annual average has been 206,495,000 bushels. Taking both winter and spring wheat the production this year is expected to total 967,412,000 bushels compared with 873,993,000 bushels last year and an annual average of 752,891,000 bushels in the past ten years.

Western Lines to Maintain Passenger Fares

At a meeting called at Chicago on July 22, to discuss an increase in passenger fares in the western territory, the presidents of the western lines decided to maintain existing fares.

Rutland Seeking Expense Reduction

Judge will close line if outlay not reduced soon, but union chief delays wage cut

L. G. Morphy, receiver of the Rutland, confronted by three mortgage foreclosure petitions by a Boston, Mass., and two New York banks, and Federal Judge H. B. Howe's order that the court could not permit the receiver "to operate the railroad many days at a loss of \$2400 a day," is seeking the co-operation of employees, the state governments of New York and Vermont, communities along the line, and citizens affected by the threatened abandonment, in reducing expenses and taxes to the point where bondholders and the court will consent to the continued operation of the road. A number of meetings have been held during the last two weeks in Rutland, Vt., by Judge Howe to discuss the receivers petition to sell or abandon the entire 407-mile railroad.

On July 21, citizens of the city were invited by the judge to discuss a proposal that a \$100,000 fund be raised locally to save the railroad. It is understood also that a group of citizens of Bennington, Vt., have indicated willingness to buy that portion of the road between Bennington and the Boston & Maine connection at White Creek, N. Y., and sufficient rolling stock to operate it, should it be decided to abandon the

Judge Howe has offered the suggestion that the road's employees accept a straight 16.7 per cent cut in wages; officers have already accepted successive salary slashes totaling about 56.2 per cent since May 5, or an aggregate of \$68,450. Counsel for the bondholders has declared that a voluntary wage cut on the part of employees might make possible the continued operation of the road for a time at least. Neither of these suggestions has been answered by labor representatives. W. F. Burke, union spokesman, insisted that such proposals could be discussed only under the provisions of the Railway Labor Act, proceedings for which are already under way.

Parties to the petition for mortgage foreclosure are the United States Trust Company, New York, trustee for the Rutland Railroad First Consolidated Mortgage, of \$3,491,000 outstanding; the Central Hanover Bank & Trust Company, New York, trustee for the Ogdensburgh & Lake Champlain Railway First Mortgage, of \$4,400,-000 outstanding; and the Old Colony Trust

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Company, Boston, Mass., trustee for the Rutland-Canadian Railroad First Mortgage, of \$1,325,000 outstanding.

Live Stock Order Is Postponed

The Interstate Commerce Commission's order of July 11, which canceled livestock services at Chicago as of August 17, has been modified to become effective on October 1.

Status of RFC Rail Loans

The monthly statement of the Reconstruction Finance Corporation as of June 30, showed disbursement to railroads (including receivers) of \$578,180,739 and repayments of \$184,482,028.

Fire Causes Damage on C. P. R.

The Canadian Pacific's Pier D, passenger and freight buildings, a freight shed and four box cars, with a value of \$1,000,000, were damaged by fire on July 27. The value of the pier itself was placed at \$500,000 and other losses at an equal amount.

Pacific Greyhound To Extend Operations

Joint Board No. 75 of the Interstate Commerce Commission, in a recommended order to the commission, would authorize the Pacific Greyhound Lines to extend its operations over 36 new routes in the San Francisco Bay area and in Southern Cali-

Club Meeting

The Transportation Club of Rochester, N. Y., will hold its annual invitation golf tournament on August 4. Competition for the Charles H. Vayo trophy is to be entered in by the various cities who have been invited to join. Reservations will be received not later than August 2. E. E. Smith is chairman of the golf committee.

Norfolk Southern Bus Application

Joint Board No. 103 of the Interstate Commerce Commission, in a report and order to the commission, has recommended that it permit the Norfolk Southern Bus Corporation to operate between Edenton, N. C., and a point on U. S. Highway 17 between Edenton and Hertford, N. C., on the one hand, and Washington, N. C., on the other, over unnumbered roads across Albemarle Sound bridge to junction with U. S. Highway 64, thence over U. S. Highway 64 to Plymouth, N. C., thence over North Carolina Highways 97 and 99 to Washington, serving all intermediate points and off-route points, Beasley, Wenona, Pike Road, Pinetown, Bishops Crossing, Pantego, Belhaven, Creswell, and Columbia N. C.

Southern Rate Case Closes

Hearings in connection with the so-called Southern rate case at Buffalo, N. Y., closed on July 22. Examiner Mattingly of the Interstate Commerce Commission designated October 15 for date of filing briefs.

Most of the arguments presented by both sides were confined to comparisons of living scales and wages between the North and the South. Testimony of public officials and shippers representing northern interests was especially concerned with the extent to which industry has already "migrated" to southern states and estimates of the effect the proposed lower rates on goods shipped from the southern states to Trunk Line and New England territories would have on northern industry and commerce.

Direct reference to railroad matters proper was made by Henry J. Saunders, statistician, Washington, D. C., who submitted figures purporting to prove that the southern roads operate more cheaply than the northern carriers. On this account, he testified, rates based on cost alone should be lower on the southern roads than on northern lines.

Triennial R. R. Y. M. C. A.

The Twenty-first Triennial Conference of the Transportation Department of the Young Men's Christian Associations of the United States and Canada will be held at the Royal York hotel, Toronto, Ont., November 9-11 of this year. In view of the complex human relations problems facing the transportation industry today, this conference promises to be of paramount importance.

Hearings Held On Motor Carrier Insurance

Division 5 of the Interstate Commerce Commission held hearings on July 26 and 27 on proposals to suspend, modify or revoke Rule VIII of its regulations governing the filing and approval of insurance and other forms of security under section 215 of the Motor Carrier Act. The rule involved requires the underwriter to qualify in every state in which the insured operates.

Old Railway Station Made Into a Park at Mexico City

As a result of the consolidation at Mexico City of the Colonia station with the Buenavista station, the site of the Colonia Railway station is rapidly being cleared of tracks and temporary buildings to create a large public park and bus terminus. The land which was occupied by the Colonia station was originally ceded to the National Railways for use as a station site, and was reclaimed by the Department of the Federal District when the station was abandoned.

Commission Condemns Low Truck Rates

The Interstate Commerce Commission, Division 5, has found that rates on petroleum and petroleum products, in tank truck and tank-truck-and-trailer loads, from Oakland, Calif., other San Francisco Bay points, and Sacramento, Calif., to Wendover, Nev. are unreasonable to the extent that they are less than 59.5 cents per 100 pounds from Sacramento, Calif., to Wendover, Nev., and 64.5 cents from Oakland, Richmond, Oleum, Martinez, Avon, and Stockton, Calif., to Wendover. The case was brought by the receivers of the Bamberger Electric, the Chicago, Burlington & Quincy, the receivers of the Denver & Rio Grande Western, the Union Pacific, the trustees of the Western Pacific, the Standard Oil Company of Indiana, and the Utah Oil Refining Company against the Lang Transportation Company which holds a 10-year contract with the Associated Oil Company to haul its oil from San Francisco and Sacramento to Utah points.

I. C. C. To Investigate Kansas Intrastate Rates

The Interstate Commerce Commission, upon its own motion, has ordered an investigation into certain commodity rates in Kansas following the refusal of that state's corporation commission to allow increases in freight rates and charges on brick, sand and gravel, livestock and petroleum and its products corresponding to increases allowed by the commission in Ex Parte 123. The commission has set a hearing on August 24 before Examiner Fuller at Topeka, Kans.

Motor Rate Investigation Ordered In California

Division 5 of the Interstate Commerce Commission has ordered a general investigation of all rates, charges and classifications of motor vehicle operators subject to the Motor Carrier Act in the State of California. The proceeding is assigned for hearing before Commissioner Lee on September 7 in San Francisco, Calif. All commodities are included in the hearing with the exception of household goods, livestock, automobiles, petroleum products in tank trucks, and articles of unusual size and value.

B. & O. Adopts N. B. C. Chimes for Diners

The Baltimore & Ohio and its subsidiary, the Alton, have placed chimes in the dining cars of their major trains which were formerly used in programs by the National Broadcasting Company. The chimes, which will be rung throughout the trains at meal times, have a range of three notes; heretofore the Baltimore & Ohio and the Alton have been using chimes of five notes. The idea for the tie-up between the railroads and the broadcasting company was first suggested by J. K. Mason, merchandising manager, National Broadcasting Company.

I. C. C. Denies Increase On Fresh Meats

The Interstate Commerce Commission has found not justified proposed increased rates on fresh meats, in carloads, from certain points in Iowa and Minnesota to destinations in official territory east of the Illinois-Indiana line. The order also approves proportional rates from those origins to Mississippi River crossings for application on traffic to the described territory, which will remove existing undue preference of those origins and undue prejudice of certain Missouri River points and St. Paul, Minn.

Greyhound Seeks to Reduce California Rates Below the Rail Rates

The Pacific Greyhound Lines have asked the California Railroad Commission for permission to reduce fares between San Francisco and Los Angeles to \$5 one way and \$9 round trip, as compared with the new rates of \$6 for one way and \$10.80 for a round trip placed in effect recently by the railroads and the Greyhound lines. The Atchison, Topeka & Santa Fe is protesting the application, charging the Pacific Greyhound lines with attempting to initiate a destructive rate war, because the reduced fares, scheduled to expire within six months, are not permanent.

K. C. S. and L. & A. Merger

Active negotiations are being made "to bring the Kansas City Southern and the Louisiana & Arkansas into close relationship in the interest of the public and the territory served and for the improvement of the position of stockholders" according to Harvey Couch, chairman of the board and the executive committee of the Kansas City Southern. "If and when the matter goes through," he continued, 'it will be in the nature of a unification of the financial interests of the two systems. Different plans with the same end in view are being considered."

Intrastate Rates In Louisiana

The Interstate Commerce Commission. upon its own motion, has ordered an investigation into the refusal of the Louisiana Public Service Commission to allow intrastate rail rates corresponding to those authorized in Ex Parte 123 for interstate traffic. The commission's action in this case follows similar orders relating to the states of Pennsylvania, Texas and Mississippi. The commission is given authority, under Section 13 of the Interstate Commerce Act, to determine whether intrastate rates cause any undue or unreasonable advantage as between persons or localities in intrastate commerce on the one hand and interstate or foreign commerce on the other hand or any unjust discrimination against interstate or foreign commerce. The commission, after a hearing, may order the state regulatory body to accept whatever rates it may prescribe in order to remove any preference found to exist.

G. M. & N. Makes New Route to Chicago

The Gulf, Mobile & Northern discontinued the operation of trains over the Illinois Central between Jackson, Tenn. and Paducah, Ky. on July 19, and estab-

lished a new route by way of the Mobile and Ohio from Jackson to St. Louis, Mo. and the Chicago, Burlington & Quincy from St. Louis to Chicago. In 1932 the Gulf, Mobile and Northern made a contract with the Illinois Central which gave the G. M. & N. trackage rights over the Illinois Central between Jackson, Tenn. and Paducah, Ky. This contract was in effect until the train service employees of the Illinois Central demanded that they replace the G. M. & N. employees. When the court upheld the Illinois Central train service employees, the Gulf, Mobile and Northern on July 19 discontinued the operation of freight trains north of Jackson and turned its business over to the M. & O. and the Burlington.

M. & O.-G. M. & N. Merger

I. B. Tigrett, president of the Gulf, Mobile & Northern, in discussing the proposed merger of the Mobile & Ohio and the Gulf, Mobile & Northern in the G. M. & N. News of July 19, stated that "Progress is being made toward that end though there are still hurdles, any one of which might defeat the project. In the opinion of our management, the combination of these two lines will bring about a more substantial railroad which will be able to render improved service to the public, furnish employment of a more prominent and stable nature, and in the end be of benefit to many unfortunate investors."

2-Cent Tickets Still Good in Eastern Coaches

The Interstate Commerce Commission on July 25 suspended until February 25, 1939, that portion of the new eastern passenger tariffs which provide that "one-way and round-trip coach tickets sold prior to July 25, 1938, at coach fares authorized in tariff to which this is a supplement, upon which going passage was not commenced by 4 A. M. July 25, 1938, will not be honored for passage after 4 A. M. July 25, 1938, but will be redeemed at the coach fares paid therefor."

As noted in last week's Railway Age, word had reached the commission that many people who have to make regular trips had purchased large numbers of tickets in advance of the passenger fare increase. Seemingly, the net result will be that if they can use them before the expiration of the seven-month period of sus-

pension, they will have saved the one-half cent a mile increase which went into effect July 25. The order of the commission set no date for the hearing on this suspension, but all eastern carriers are made respondents in the case.

Britain's Southern Completes Coast Electrification

The Southern (Great Britain) has recently completed the electrification of its South Coast lines between Brighton and Portsmouth, at a cost of £2,775,000 (\$13,708,500). For some years past, electric trains have been running to Brighton and Worthing, and last year the electrification of the line was continued to Portsmouth and Southsea. Completion of the project has fitted for electric service 75 routemiles and 165 track-miles in the middle section of the coast from West Worthing to Havant and the line between London, Littlehampton and Bognor, which up to the present time have been operated by steam.

By reason of the electrification an average of 15 min. has been cut on all schedules concerned, and the total number of trains has been doubled. To replace the steam-operated rolling stock, 292 cars with multiple-unit control have been constructed by the Southern at its shops. This group includes so-called buffet cars which, among other new features, are fitted with rubber edges on the tables, padded counters and special silencing acoustic asbestos. To provide additional power for the new service. 20 new sub-stations have been built and 77 miles of high tension cable laid along the line. A new system of signaling was also installed and several stations rebuilt or altered.

G M C Exhibit at World's Fair to Include Diesels

A large section of the General Motors Corporation exhibit at the New York World's Fair of 1939 will be devoted to Diesel engine operations. In this connection, a complete 3,600-hp. streamlined Diesel-electric locomotive will be displayed for visitors to inspect. The field of transportation as a whole will be reviewed through scientific and educational exhibits sponsored by General Motors Research Laboratories, which will illustrate the contributions and achievements of research in transportation during the past 25 years.



A Complete Diesel Locomotive Will Be Displayed at the Entrance to the General Motors Exhibit at the New York World's Fair as Is Illustrated by this Model Designed by Norman Bel Geddes

This will be supplemented by stage and screen programs offered in a large auditorium to be erected for the purpose.

The General Motors building at the fair will cover a 299,439-sq. ft. plot, equal in area to about 2½ city blocks.

B. & O. and Pullman to Streamline Capitol Limited

The Baltimore & Ohio has concluded arrangements with the Pullman Company for the streamlining of the Capitol Limited, the roads all-Pullman train operating between Washington, D. C., and Chicago. The work will be started immediately, one set of the train's equipment being put through the shops first, to be followed by the other set as the first Capitol streamliner goes into service. Delivery of the first set is expected in the early fall.

The improved Capitol will follow the now-standard B. & O. pattern of streamlining, devised by Otto Kuhler, consulting engineer of design. There will be deep skirting on the car sides, rounded roofs and smooth closures between the cars. Royal blue will be the body color, with black and gray trim, and striping and lettering in gold. The observation end will be of new semi-streamlined effect, rugged in both construction and appearance, and with nameplate-emblem insignia on either side.

The interior decoration of the cars will follow the trend in lighter colors, in combinations to match the new upholstery. Additional individual bedrooms will be available on all sections. The Colonial dining cars, which have been running on B. & O. through trains for some time, will continue in service. They are decorated with mahogany panelling and cream trim and are fitted with moulded festoons, crystal ceiling gloves and prisms, Heppelwhite chairs and Sheraton sideboards, in the manner of the colonial dining room.

L. N. E. R. Releases Details on 125 m. p. h. Speed Record

Details concerning the 125 m.p.h. speed reached by the Coronation Express of the London & North Eastern (Great Britain) on July 3, which set a record for train speed in Great Britain, have recently been released by the railroad, supplementing brief announcements published by the press on July 4. According to the official record of the trial run during which the record speed was attained, the train, carrying a dynamometer car, sustained 125 m.p.h. for 306 yards near the Little Bytham station. A reduction in this speed was necessitated by operating rules covering the nearby approach to a junction at Essedine. Just prior to the attainment of the maximum speed, the train had realized a sustained speed of 120 m.p.h. for approximately three miles. The train was hauled by locomotive No. 4468, named "Mallard," a streamlined Pacific type designed by Sir Nigel Gresley, chief mechanical engineer of the road, and built in March, 1938. The special train carried a party of engineers. It was reported that during the period when the train was reaching 125 m.p.h., tea, being served to passengers aboard, was poured and consumed without spillage.

This record, as confirmed by the dyna-

mometer car chart, is claimed to be the record for a British steam locomotive. According to the records compiled by the Railway Age in 1936, the Pennsylvania Special (now the Broadway Limited), attained 127.2 m.p.h. for a distance of three miles between Elida, Ohio, and AY tower on June 12, 1905, and a general managers' special, also on the Pennsylvania, sustained an average speed of 124 m.p.h. for a distance of 6.2 miles between Hanna, Ind., and Wanatah on September 27, 1903.

Freight Car Loading

Loading of revenue freight for the week ended July 16 totaled 602,300 cars, an increase of 101,287 cars or 20.2 per cent above the preceding week, which contained a holiday, but a decrease of 164,084 cars or 21.4 per cent below the corresponding week in 1937 and a decrease of 313,685 cars or 34.2 per cent below the same week in 1930. All commodity classifications showed increases over the preceding week, while all commodity classifications except grain and live stock showed decreases under last year. The summary, as compiled by the Car Service Division, Association of American Railroads, follows:

Revenue Freight Car Loading

nevenue	rreignt C	ar roaaind	
For Week	Ended Satu	arday, July	16
Districts	1938	1937	1936
Eastern	119,799 106,371	151,518 155,218	148,556 147,020
Pocahontas	41,989	47,059	48,024
Southern	88,637	100,631	94,166
Northwestern	82,412	134,485	115,598
Central Western. Southwestern	112,739 50,353	122,626 54,847	110,883 56,112
Total Western Districts	245,504	311,958	282,593
Total All Roads.	602,300	766,384	720,359
Commodities			
Grain and Grain			
Products	63,022	48,715	58,573
Live Stock	12,527	10,449	12,317
Coal	89,749	105,485	108,510
Coke	4,192	10,313	8,660
Forest Products.	28,186	41,898	33,986
Ore	24,312	79,782	53,680
Merchandise l.c.l. Miscellaneous	145,335	163,147	160,464
Miscellaneous	234,977	306,595	284,169
July 16	602,300	766,384	720,359
July 9	501,013	678,958	724,277
July 2	588,864	802,346	649,703
June 25	558,937	769,945	713,588
Tune 18	555,569	752,787	690,667

Cumulative Total, 28 Weeks15,333,615 20,485,517 18,144,297

In Canada.—Car loadings for the week ended July 16 totaled 43,918, as compared with 43,346 for the previous week, and 49,858 last year, according to the compilation of the Dominion Bureau of Statistics,

Total for Canada:	Total Cars Loaded	Total Cars Rec'd from Connections
July 16, 1938	43,918	17,789
July 9, 1938	43,346	16,763
July 2, 1938	38,372	18,320
July 17, 1937	49,858	24,354
Cumulative Totals for Canad	da:	
July 16, 1938	1,223,883	581,262
July 17, 1937	1,336,385	773,513
July 11, 1936	1,216,910	655,202

N. Y. Governor to Name Citizen Body to Study Westchester Line

In answer to pleas that something be done about the now idle New York, West-chester & Boston, Gov. Herbert H. Lehman of New York state has asked the mayors or town boards of communities along the electric railroad to suggest names for appointment by him to form an un-

official committee of citizens to consider the possibility of restoring the road to service. These members would serve without compensation.

The governor's step has been taken in answer to a letter written by Pliny W. Williamson, member of the state Senate, in which it was suggested that Governor Lehman "appoint a committee of citizens to represent the people from all of these municipalities suffering from the discontinuance of the railroad," adding that "the members appointed would serve without compensation, save the satisfaction that comes with the performance of a public service rendered to their neighbors."

In the first part of his letter, Senator Williamson recalled that the Westchester had furnished suburban passenger and freight service to the eastern and central portions of Westchester county and the Bronx for over 25 years, carrying in some years more than 14,000,000 passengers Further, he wrote, much of that territory was developed largely in the belief that continuous service of the road was assured, and, by reason of cessation of service on December 31, 1937, real estate values and property taxes are seriously threatened. The letter went on to point out that heretofore no co-ordinated agency representing the entire territory served by the road has been formed to work for its restoration; hence, the plan outlined above for a citizen committee.

Meanwhile a protective committee of first mortgage bondholders of the road, with I. A. Sartorius of New York as chairman, is developing a plan for resumption of service on a scale which will produce adequate earnings. A hearing on a scheduled for July 29 by the U. S. District Court for southern New York.

June Truck Loadings 17.44 Per Cent Below Last Year's

The recent steady decline in the volume of freight moved by motor truck was arrested slightly in June, according to tonnage figures compiled by the American Trucking Association, Inc. Comparable reports received from 110 carriers in 31 states disclosed an increase in June of 3.60 per cent over May. All types of carriers reported increases in June over the preceding month, except automobile transporters. June loadings, however, were 17.44 per cent under the volume reported for the corresponding month last year.

The reporting carriers transported an aggregate of 387,839 tons in June, 1938, compared with 374,338 tons in May and 469,762 tons in June, 1937. Although there was a decline in June traffic as against the same month in 1937, the decrease was not as great as was shown in the first three months of this year. In January, February and March, carriers reported decreases of 18.24 per cent, 20.49 per cent, and 16.89 per cent, respectively, as compared with volume moved in the corresponding months of last year. The ATA truck loadings index figure based on the monthly average of tonnage for the year 1936 as 100, stood at 91.28 for June, 1938, as compared with 92.24 for May and 117.91 for June, 1937.

Haulers of petroleum products, due to

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While speed is the essence of modern train operation, speed alone is not enough.

Your motive power must furnish the desired speed at low operative cost plus moderate maintenance and reasonable initial investment.

In any service, today's high standard of train operation can be maintained at the lowest possible cost only by utilization of modern steam power.

LIMA LOCOMOTIVE WORKS

LOCOMOTIVE WORKS, INCORPORATED, LIMA, OHIO

seasonal movements, reported an increase of 8.14 per cent over May, and a 3.72 per cent increase over June, 1937. Carriers transporting general merchandise, or package freight, reporting an aggregate volume of 244,465 tons, representing an increase of 3 per cent over May, compared with an 11.85 per cent decrease under the June, 1937. total.

Movement of cars and trucks by automobile transporters in June, 1938, dropped almost 5 per cent under the previous month and was 56.17 per cent under June, 1937. This large decrease is attributed by reporting carriers to the general business recession and a corresponding decline in the automobile manufacturing industry. Improvement in the iron and steel industry was reflected in figures of iron and steel transporters, which showed a 9.60 per cent increase in June over May. The June volume, however, was 52.24 per cent under June, 1937.

Volume of miscellaneous commodities showed a 16.24 per cent increase over May, but showed a 3.83 per cent decrease under June, 1937.

N. Y. Port Body Seeks to Cut Bridge Delays

Assistance in the elimination of swing and lift bridge openings for water and land traffic is the object of a survey initiated this week by the Port of New York Authority, in cooperation with the United States Engineers. In the effort to obtain information pertaining to the heights of masts and smokestacks, and other limiting dimensions of tugs, barges, and small commercial craft generally, that use the waters of New York harbor, forms have been distributed to several hundred tug and barge owners through the Maritime and Towboat Exchanges, the Harbor Carriers, Inland Water Petroleum Carriers, Canal Carriers' Associations, National Board of Steam Navigation, and the Atlantic Coast Towboat Association, the purpose of which is to furnish accurate and comprehensive data to the Army Engineers, who have jurisdiction over navigable The results will indicate the extent to which harbor craft can navigate under standard bridge clearances without requiring opening and will aid the Engineers in determining the necessary clearance of low level bridges over the waterways of the port.

As a result of delay and commercial losses, both to shipping and land transportation in Newark bay and the Hackensack and Passaic rivers, in New Jersey, the Army Engineers, in 1923, established certain periods during the peak of the commuter rush when the bridges need not be opened. When the bridges in this section were reconstructed at a minimum height of 35 feet., in closed position, tugs and barges using the waterways were urged to cut down their stacks and masts below this limit. Most of them complied, with the result that 80 per cent of the bridge openings in that section of the port have been eliminated.

The present survey is carried on by the Port Authority as a part of its duty to advise the federal government on channel improvements. Acts of the New York and

New Jersey legislatures, and a resolution of Congress, provide that the Port Authority shall advise on the channels of the port within an area roughly 20 miles around the Statue of Liberty. The Port Authority has since 1921 frequently been consulted by Congress and the War Department, which has jurisdiction over channels, with respect to the justification of new channel improvements, the fixing of horizontal channel widths between harbor lines, and the vertical clearances between overhead bridges, and the proper depths for pipe lines and tunnels.

I. C. C. Examiner Hears Appeal on State Anthracite Rate Ban

Governor Earle of Pennsylvania again sought to prevent higher intrastate rates on anthracite in his state when he appeared before Examiner R. N. Trezise during an Interstate Commerce Commission hearing held at Harrisburg, Pa., to determine whether the state Public Utility Commission can refuse to allow the carriers to boost intrastate anthracite rates up to 11 cents per gross ton, in conformity with a similar increase on interstate rates permitted by the I. C. C. in Ex Parte 123. The governor asked the I. C. C. to back the state utility body in its refusal to allow the increase, declaring that the rate rise would further cripple the "sick" hard coal industry and drive more shipments to the motor trucks. In connection with several anthracite communities, he also requested the I. C. C. to make a personal observation of conditions in the mine regions. He had previously instructed the state utility body to refuse the rate increase, as was reported in the Railway Age of March 25, page 579.

During the hearings, F. H. Moser, coal traffic manager, Lehigh Valley, testified that his road will lose \$100,000 per annum should the state commission continue to refuse to allow state rates to be brought into line with interstate rates. In addition, the road now suffers direct revenue losses through traffic diversion and "shorthauling." For example, the railroad normally ships coal from the mine regions to P. R. R. docks in the Philadelphia, Pa., area via Phillipsburg, N. J., but because of the present gap between rates on intraand interstate movements, it now must deliver shipments to connections at Tomhicken, Pa., and New Boston junction, at a loss of approximately 56 cents per ton.

C. H. Lippincott, general coal freight agent, Pennsylvania, who was the carriers' chief witness, estimated that approximately \$800,000 in revenue will be lost to all the anthracite roads should the state body fail to permit the increase. The railroads' argument also pointed out that the present differential enjoyed by consignees in Pennsylvania works discrimination against dealers and consumers in adjoining states, especially at border points.

The hearings, which were held in connection with an appeal to the I. C. C. by carriers operating in Pennsylvania from the Public Utility Commission order, opened on July 20 and closed at 1:25 a. m. Sunday, July 24. Carriers have until September 1 to file briefs; replies must be submitted by September 20.

Supply Trade

The American Brake Shoe & Foundry Co. of California, has changed its name to The American Brake Shoe & Foundry Co., Pacific Coast Division, with headquarters at San Francisco, Calif.

J. B. Tate, for over 30 years in the operating and purchasing departments of the Pressed Steel Car Company, has been appointed general manager of the H. K. Porter Company, Pittsburgh, Pa.

H. C. Duggan has been placed in charge of sales and service of the Detroit division of Oakite Products, Inc., New York, handling the work of J. A. Maguire, Detroit division manager, who is incapacitated because of illness. Mr. Duggan's head-quarters are in the General Motors building, Detroit, Mich. The New York and New England divisions of the company have been consolidated into one unit, to be known hereafter as the Northeastern division. D. X. Clarin, New York division manager at New York, is in charge of the new division.

William C. Simpson has been appointed manager of sales of the newly opened sales office of the Lukens Steel Company, in the Gulf building, Pittsburgh, Pa. Mr. Simpson was born at Columbia, N. J., and after graduating from the Belvidere, N. J., high school, attended Blair Academy and Lehigh University, receiving the degree of bachelor of science in metallurgical engineering from the latter in 1932. In 1933 Mr. Simpson entered the employ of the Bethlehem Steel Company at Sparrows Point, Md., and since January, 1934, has served the Lukens organization as research engineer in the metallurgical department, research metallurgist in the research department, and, since September, 1936, has been in the sales and sales development department.

OBITUARY

Samuel L. Shober, assistant to president of the Union Switch & Signal Company, with headquarters at Philadelphia, Pa., died on July 18.

F. A. Lorenz, Jr., vice-president of the American Steel Foundries, Chicago, died in that city on July 23, after a long ill-Mr. Lorenz graduated from the University of Chicago in 1905 and received his masters degree in engineering from the University of Illinois in 1909. In the same year he entered the service of the Chicago & North Western as a special motive power apprentice at its Chicago shops. During 1910 and 1911 he was employed in various capacities by the Republic Iron and Steel Company at its East Chicago, Ind., plant. In the latter year he entered the employ of the American Steel Foundries as a wheel engineer and later became manager of sales of Davis wheels, assistant to the fourth vice-president in charge of operations and works manager of the Indiana Harbor works. In 1930 he was promoted







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Pounding driving boxes, brought about by improper wedge adjustment, soon has the locomotive traveling over an expensive section of the road—the one leading to the repair shop . . . Detour around this stretch by eliminating the cause with the application of the Franklin Automatic Compensator and Snubber. » » With this application, any expansion and contraction that occurs in the driving box is taken up <u>automatically</u> . . . while the locomotive is running. In addition, a heavy spring acts as a cushion to take care of any abnormal shocks. » » For easier riding, prevention of pounds, reduced tire wear, and less frequent trips to the back shop, incorporate the Franklin Automatic Compensator and Snubber.



The close tolerances essential to efficient operation call for genuine repair parts. Franklin makes them exact.

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to general manager of the Indiana Harbor and Pittsburgh works, in charge of sales and production, which position he held until 1934 when he was elected vice-president, the position he was holding at the time of his death.

TRADE PUBLICATION

G. E. Products-A number of bulletins varying in size from 2 to 16 pages have been issued by the General Electric Company, for providing up-to-date information on G. E. products. They are, as follows: G. E. controllers for synchronous motors (GEA-1724A); Brake motor (GEA-2026A); Electrode for cast-iron welding (GEA-2966); Electrode for high-speed arc welding (GEA-2965); Thyratron resistance-welder controls (GEA-2791A); A.c. magnetic motor-starting switch (GEA-19H); A.c. reversing-drum switches (GEA-743B); Alternating-current arc welders (GEA-1750D); Manual motor-starting switch (GEA-2234B); D.c. magnetic crane control (GEA-2292A); Alnico limit switch (GEA-2907); Oilproof pushbutton and selector switch (GEA-2908); Electric water cooler (GEA-2932); Gear motors (GEA-1437C); Arc welders (GEA-1440F; Direct-current motors (GEA-1542C); Magnetic motor starting switches (GEA-2889); Wound rotor a.c. crane motors (GEA-2714); Track-type limit switch (GEA-2052A); Generators and exciters (GEA-1607B).

Equipment and Supplies

FREIGHT CARS

THE MANILA RAILROAD has ordered 50 box cars of 30 tons' capacity from the Pressed Steel Car Company and 50 flat cars of 30 tons' capacity from the Gregg Company, Ltd. Inquiry for this equipment was reported in the Railway Age of June 25.

SIGNALING

MOBILE & OHIO.—Bids will be received by W. J. Diehl, purchasing agent of this road at St. Louis, Mo., until 3:00 p. m., August 15, for furnishing certain materials for flashing light installation at highway crossing route 156, Waterloo, Ill., under the federal grade crossing program in the state of Illinois.

ELGIN, JOLIET & EASTERN.—Sealed proposals will be received at the office of the purchasing agent of the Elgin, Joliet & Eastern, 208 South La Salle St., Chicago, until 10 a. m. central standard time, August 16, for furnishing signaling materials to be used in connection with highway grade crossing protection at two crossings in Illinois.

Construction

California & Oregon Coast.—The Interstate Commerce Commission, Division 4, has dismissed, without prejudice, the application by the City of Grants Pass, Ore., for authority to acquire this company and the application by the City of Grants Pass and the Crescent City Harbor District for authority to extend this company's line.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—The Public Works Administration has made an allotment of \$114,545 towards the total cost of \$254,545 for a grade crossing elimination project at Wrightwood avenue between North Pulaski road and North Keeler avenue in Chicago, Ill., involving the construction of a structural steel deck railroad bridge and a subway and approaches for a four-lane highway and two sidewalks, including appurtenances.

Norfolk & Western. — This company has asked the Interstate Commerce Commission for a further extension until December 31, 1940, of the time within which to complete construction of a line from Grundy, Va., in a general southeasterly direction along the Levisa river and Garden creek, 14.5 miles, and from a connection with the Garden Creek line near the mouth of Dismal creek easterly along that creek to a point near the mouth of Knob branch, 24 miles, making a total distance of 38.5 miles.

PENNSYLVANIA - READING SEASHORE. — The Public Works Administration has made an allotment of \$513,000 towards the total cost of \$1,140,000 for a grade crossing elimination project in Absecon, N. J., involving the moving and relocation of this company's tracks.

St. Louis-San Francisco.—A contract for the renewal of two 153-ft. through truss spans and two 102-ft. through plate girders on this company's bridge over the Meramec river about two miles west of Pacific, Mo., has been awarded to the Mount Vernon Bridge Company, Mount Vernon, Ohio.

St. Louis Southwestern.—A contract amounting to \$57,289 has been awarded by the Arkansas State Highway Department to F. M. Dixon, Warren, Ark., for the construction of a reinforced concrete and steel bridge over the tracks of the St. Louis Southwestern near Kingsland, Ark.

Union Pacific—The Union Pacific has awarded a contract to Peter Kiewit Sons Co., Omaha, Neb. for plumbing, heating, painting, wood block flooring and miscellaneous items for its new railway mail terminal building in Council Bluffs, Iowa. Wrecking of the old building was completed on July 10, and footings and foundations were completed by Union Pacific forces on July 23. The steel frame is being erected by the Truscon Steel Co. and the new terminal will be completed on or before Oct. 1.

Financial

Atchison, Topeka & Santa Fe.—Adjustment Bond Interest.—Directors on July 27 authorized payment on September 1 of the 2 per cent semi-annual interest on its 4 per cent adjustment bonds, which was due on May 1 but was deferred at that time. No action was taken on the preferred dividend, which was deferred at the same time that adjustment bond interest was held up, but action may later be taken if revenues warrant.

CHICAGO, ROCK ISLAND & PACIFIC.—Abandonment.—Examiner J. S. Prichard of the Interstate Commerce Commission, in a proposed report to the commission, has recommended that it authorize the trustees to (1) abandon a branch line extending from Altamont, Mo., to Stillings Junction, 67.5 miles; (2) abandon operation under trackage rights over a line of the Leavenworth Terminal Railway & Bridge extending from Stillings Junction, Mo., to Leavenworth, Kans., 1.4 miles; and (3) abandon operation under trackage rights over a line of the Leavenworth Depot & Railroad in Leavenworth, 0.2 mile.

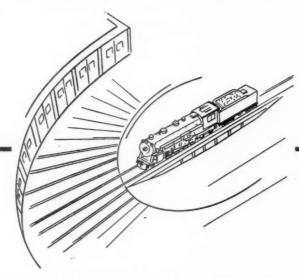
ERIE—Payment.—Trustees of the Erie petitioned the Federal District Court in Cleveland, Ohio on July 22 for permission to pay \$247,000 principal installment on equipment trust certificates, series NN, which matured July 15, and dividends thereon amounting to \$50,017. They also asked for permission to pay \$279,000 on Erie equipment trust certificates of 1929 and dividends of \$81,607 which will be due on August 1.

ERIE.—Operation.—The Interstate Commerce Commission, Division 4, has authorized the trustees to operate, under trackage rights, over the line of the Susquehanna Connecting extending from a connection with the Wilkes-Barre & Eastern at Suscon, Pa., to Old Forge, 6.6 miles, together with the Florence Breaker branch, 2 miles; over the Jermyn No. 2 Breaker branch of the New York, Susquehanna & Western extending from a connection with the Susquehanna Connecting at Old Forge, Pa., 1.5 miles; and over the part of the Wilkes-Barre & Eastern extending from Suscon, Pa., to Plains, 8 miles, to-gether with the Westminster branch, 0.5 mile, a total of 18.5 miles.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE. — Abandonment. — The Interstate Commerce Commission, Division 4, has authorized the trustees to abandon the operation and the receiver of the Wisconsin Central to abandon a branch line extending easterly from Owen, Wis., to Curtiss, 6.8 miles.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—Compensation of Trustees.—The Interstate Commerce Commission, Division 4, has ordered that a maximum compensation at the rate of \$25,000 per year be paid to G. W. Webster and \$18,000 per year be paid to Joseph Chapman as trustees of this company in its reorganization

SPECIAL BRICK SHAPES ...are a nuisance



The initial standardization of Arch Brick shapes and sizes and Arch tube spacing was the work of the American Arch Company.

It is a work that goes forward constantly and saves the Stores and Mechanical Departments a vast amount of trouble.

The easiest solution to many a locomotive Arch engineering difficulty would be to use a

special brick shape. But this the American Arch Company is willing to do only as a last resort. Over 50% of all Arch Brick is covered by 6 separate patterns.

The insistence of American Arch Company on adhering to standards has simplified the work of the Storekeeper and Maintenance Man. It is only one of the many ways in which American Arch Company is serving the railroads.

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

HARBISON-WALKER REFRACTORIES CO.

Refractory Specialists



AMERICAN ARCH CO. INCORPORATED

60 EAST 42nd STREET, NEW YORK, N. Y.

Locomotive Combustion Specialists proceedings under Section 77 of the Bankruptcy Act.

MISSOURI PACIFIC. - Purchase. - The Missouri Pacific Freight Transport Company, a wholly owned subsidiary of this company, has applied to the Interstate Commerce Commission for authority to purchase the certificate of convenience and necessity of J. W. Allen, doing business as the Allen Motor Transportation & Terminal.

NEW YORK, CHICAGO & St. Louis.-Extension of Notes.-The Nickel Plate is asking holders of its 6 per cent unsecured notes outstanding in the principal amount of \$15,000,000, to consent to a three-year extension of the issue, which matures on October 1. The plan of extension provides for an exchange of the present notes for new ones, on a par-for-par basis, at a continuing 6 per cent rate of interest, and maturing as to principal on October 1, 1941. Holders of the present notes are asked to deposit them with the Manufacturers' Trust Company, New York, the designated agent and depositary, before August 31. When the plan is declared operative by the company, new notes will be issued and the full interest due October 1, 1938, will be paid. The notes on which the road seeks extension were issued in 1935 in exchange for a like amount of three-year notes which matured on October 1, 1935, at which time it was not possible otherwise to retire or refund them.

G. D. Brooke, president of the road, in his letter to noteholders, points out that beginning in 1935 and continuing until the summer of 1937, there was a substantial improvement in the earnings of the company, during which period it was enabled to make certain definite improvements in its financial affairs. Two of its first mortgage issues were extended for ten years at substantially lower interest rates; short term indebtedness of more than \$15,000,000 owing to the Reconstruction Finance Corporation and more than \$4,000,000 to the Railroad Credit Corporation was retired by the sale of \$16,000,000 principal amount of ten year 4 per cent collateral trust notes and by use of treasury cash. He writes further: "There has been a net decrease of approximately \$3,250,000 in the company's indebtedness, notwithstanding the issuance of equipment trust obligations for the acquisition of a substantial amount of new rolling stock. The result of these transactions has been to reduce the annual interest charges of the company by approximately \$250,000 as compared with the amount of interest paid during the year 1935."

Analyzing the recent decline in earnings, Mr. Brooke states that for the first six months of 1938 the company's earnings available for fixed charges amounted to only \$1,730,760, or 48 per cent of such charges. He concludes with: "Unless this proposal is accepted by the holders of substantially all of the notes, a re-organization of your company under the provisions of Section 77 of the Bankruptcy Act is inevitable."

NEW YORK, ONTARIO & WESTERN.-Remuneration of Trustee.-Frederic E. Lyford, trustee of this company, has asked

the Interstate Commerce Commission for a reconsideration of its recent order setting \$12,000 as his maximum yearly salary. Mr. Lyford says that in view of the fact that he is actively managing the property and that both the vice-president and the general manager have resigned and their places have not been filled, he should be entitled to the \$15,000 which he had originally requested in his initial petition. It is Mr. Lyford's contention that at the time that the \$12,000 salary was fixed, the commission believed that both the vice-president and the general manager would share in the management of the property. Now that their duties have devolved upon him, he feels that he should have the \$3,000 increase in salary.

NORFOLK & PORTSMOUTH BELT .- Notes. -This company has applied to the Inter-state Commerce Commission for authority to issue and deliver to a bank or banks a note or notes in the aggregate of \$700,000, the proceeds to be used to redeem \$250,000 of outstanding general and refunding mortgage bonds and \$450,000 of bank loans.

NORFOLK SOUTHERN.—Abandonment. -The Interstate Commerce Commission, Division 4, has authorized the receivers to abandon the Jackson Springs branch, extending from West End, N. C., to Jackson Springs, 4.3 miles.

St. Louis-San Francisco—Interest Payments.-The Federal District Court at St. Louis has authorized the trustees of the St. Louis San Francisco to pay \$156,010 interest on \$6,505,500 of 4 and 5 per cent general mortgage bonds of the Kansas City, Memphis & Birmingham. Interest payments on the bonds have been suspended since May 1, 1934. Funds are now available for the

WABASH.—Abandonment.—The Federal District Court at St. Louis, Mo., has granted the Wabash permission to petition the Interstate Commerce Commission for an order to abandon 25 miles of a branch line running from Sullivan in Moultrie county, Ill., to Stewardson in Shelby county. In 1934 the line lost \$9,703; in 1936, \$3,212; and in 1937, \$3,006.

Average Prices of Stocks and Bonds

A	July 26	Last week	Last year
Average price of 20 representative railway stocks	30.18	29.37	52.68
Average price of 20 representative railway bonds	61.96	60.77	80.65

Dividends Declared

Bangor & Aroostook. — 63¢, quarterly; Preferred, \$1.25, quarterly, both payable October 1 to holders of record August 31.
Columbus & Xenia.—\$1.10, payable September 10 to holders of record August 25.
Erie & Kalamazoo.—\$2.50, payable August 1 to holders of record July 26.
Louisville & Nashville.—No action taken.
Mine Hill & Schuylkill Haven.—\$1.25, semiannually, payable August 1 to holders of record July 15.

Mine Hill & Schulytan.

annually, payable August 1 to holders of record July 15.

North Carolina.—7 Per Cent Guaranteed \$3.50, semi-annually, payable August 1 to holders of record July 21.

Oswego & Syracuse.— \$2.25, semi-annually, payable August 20 to holders of record August 5.

Pittsburgh, Youngstown & Ashtabula.—7 Per Cent Preferred, \$1.75, quarterly, payable September 1 to holders of record August 20.

Pullman, Inc.—37½¢, payable September 15 to holders of record August 24.

Wheeling & Lake Erie.—Preferred-no action; Prior Lien, \$1.00, quarterly, payable August 1 to holders of record July 25.

Railway Officers

EXECUTIVE

John C. Gale, chief special agent of the Union Pacific, has been appointed assistant to the president, with headquarters at Omaha, Neb.

N. B. Walton, chief of transportation of the Canadian National, with headquarters at Montreal, Que., has been appointed vice-president in charge of operation, maintenance and construction, with the same headquarters. Mr. Walton was born



N. B. Walton

in Palmerston, Ont., and entered railroad service in 1900 as a clerk and stenographer with the Grand Trunk at Toronto, Ont. From that year until 1907 he served with the Grand Trunk as clerk and stenographer, secretary to superintendent, telegraph operator and secretary to vice-president and assistant trainmaster. In 1907 Mr. Walton was appointed secretary to the vice-president and later inspector of transportation of the Great Northern at St. Paul, Minn., returning to the Grand Trunk at Toronto in April, 1908, in the office of the claims agent. In October of that year Mr. Walton became secretary to the general superintendent of the Grand Trunk Pacific at Winnipeg, Man., and served subsequently as trainmaster at Wainwright, Alta., assistant to general superintendent at Winnipeg, and superintendent at Edmonton, Alta. In September, 1920, Mr. Walton became assistant general superintendent of the Canadian National at Prince Rupert, B. C., and was transferred to Winnipeg in 1924 as general superintendent. He was appointed general superintendent of transportation of the Western region in March, 1930, with headquarters at Winnipeg. In November, 1936, he was appointed chief of transportation for the entire system, with headquarters at Montreal, remaining in that position until his present appointment.

FINANCIAL, LEGAL AND ACCOUNTING

Edward Dixon, whose appointment as freight claim agent of the Reading, at Machinedieforging

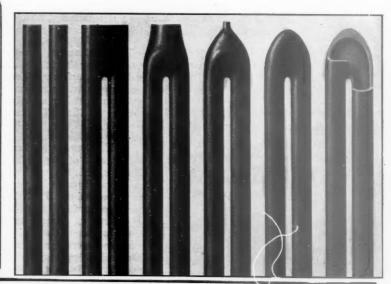
..the Key
to Correct
Superheater
Design

Machine-die-forging is the only method whereby the return bends and ball ends are formed from the superheater tubing itself . . . and without the use of either additional material or a flux.

Elesco superheater units are stronger at the bends where strength is needed most. They provide constant area through the bend, with ample internal and external surfaces.

This exclusive machine-die-forging process is used in both the manufacture of new Elesco superheater units and the REmanufacture of old superheater units.

Keep abreast of superheater design with Elesco.





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Representative of AMERICAN THROTTLE COMPANY, INC.
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Canada: THE SUPERHEATER COMPANY, LTD., MONTREAL

Superheaters « Exhaust Steam Injectors « Feed Water Heaters « American Throttles « Pyrometers « Steam Dryers

Philadelphia, Pa., was reported in the Railway Age of July 2, entered the service of the Reading as a truckman on April 9, 1906, at Philadelphia and a year later became delivery clerk and checker. On September 3, 1915, Mr. Dixon was appointed



Edward Dixon

assistant claim clerk and on March 5, 1918, became claim clerk. On March 1, 1919, he was appointed freight claim inspector and on December 18, 1933, became assistant freight claim agent, the position he held until his recent appointment as freight claim agent.

OPERATING

Edgar H. McFadden, assistant superintendent on the St. Louis Southwestern, with headquarters at Pine Bluff, Ark., will retire July 31.

J. R. Tucker, storekeeper of the Missouri & Arkansas at Harrison, Ark., has been promoted to general manager with the same headquarters, succeeding W. E. Welch, who has resigned.

J. E. Mulick, freight conductor on the First district of the Nebraska division of the Union Pacific has been promoted to trainmaster with headquarters at Ogden, Utah, succeeding R. E. Cordiner, who has been assigned to other duties.

The Baltimore division of the Pennsylvania has been made a part of the Maryland division and **E. S. Reed,** superintendent of the Baltimore division, has been appointed superintendent of the new Maryland division, with headquarters at Baltimore, Md.

F. N. Reynolds, general superintendent of the Cleveland, Cincinnati, Chicago & St. Louis has been appointed to the newly created position of assistant general manager with headquarters as before at Indianapolis, Ind., and the office of general superintendent has been abolished.

Charles W. Philhour, assistant to the general superintendent of transportation of the Atchison, Topeka & Santa Fe at Chicago, has been promoted to trainmaster of the Chicago Terminals succeeding Lawrence C. Brown who has retired. Paul T. Collins, chief dispatcher at

Dodge City, Kan., has been promoted to assistant to the general superintendent of transportation at Chicago replacing Mr. Philhour.

Marshall M. Killen, general foreman of bridges and buildings on the Gulf, Colorado and Santa Fe, with headquarters at Galveston, Tex., has been promoted to trainmaster with headquarters at Beaumont, Tex., succeeding Arthur B. Clements, who has been transferred to Brownwood, Tex., replacing Clarence R. Tucker whose promotion to superintendent of the Southern division was reported in the Railway Age of July 9.

George R. Morrison, whose retirement as superintendent of the employment bureau of the Chicago, Milwaukee, St. Paul & Pacific at Chicago, was reported in the Railway Age of July 16, entered railway service in 1871 as a messenger boy on the Pere Marquette, and later became a telegraph operator. In 1879 he left the Pere Marquette to go with the Milwaukee as a telegraph operator, and subsequently served as a train dispatcher and as a trainmaster at Perry, Iowa, and Savanna, III. In 1901, he was promoted to superintendent at Savanna, and in 1918, he was advanced to superintendent of the employment bureau in Chicago, the position he held at the time of his retirement.

TRAFFIC

William J. Thorworth, traveling freight agent on the St. Louis-San Francisco, with headquarters at St. Louis, Mo., has been promoted to the newly created position of general agent at Mobile, Ala.

C. T. Carter, traveling freight and passenger agent on the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at New Orleans, La., has been promoted, effective August 1, to general agent at that point, succeeding William H. Rogers, who will retire on account of ill health.

Leo Gallagher, general freight agent on the New York, Chicago & St. Louis, with headquarters at Cleveland, Ohio, has been promoted to assistant freight traffic manager, with the same headquarters, succeeding William J. Courtney, who died on July 10.

R. E. Drummy, general agent, freight department, of the Union Pacific at Los Angeles, Cal., has been promoted to general passenger agent with the same headquarters, succeeding L. E. Omer, who has been assigned to other duties. Madison H. Fowler, general agent at Glendale, Cal., has been advanced to assistant general passenger agent, a newly created position, with headquarters at Los Angeles, and L. C. Fowler, passenger and freight traffic agent at Pasadena, Cal., has been promoted to general agent at Glendale, replacing Mr. Madison H. Fowler.

A. E. Pfaff, general agent of the New York, Chicago & St. Louis at Milwaukee, Wis., has been promoted to assistant general freight agent with headquarters at Cleveland, Ohio, succeeding Kenner S. Boreman, who has been assigned to other duties at that point, and N. J. Griffin, freight representative at Milwaukee has been advanced to general agent replacing Mr. Pfaff.

H. E. Draper, traveling freight and passenger agent on the New York, Chicago & St. Louis, with headquarters at Los Angeles, Cal., has been promoted, effective August 1, to perishable agent, with headquarters at Harlingen, Tex., to succeed F. C. Mosely, whose promotion to general agent at Dallas, Tex., was announced in the Railway Age of July 9.

Karl H. Suder, whose promotion to freight traffic manager of the Akron, Canton & Youngstown and the Northern Ohio with headquarters at Akron, Ohio was reported in the Railway Age of July 9, entered railway service in the traffic department of the Pennsylvania, serving in various capacities in both the freight and passenger traffic departments. In 1926 he went with the Ohio and Pennsylvania Coal Co., and became sales manager of that On December 16, 1936, Mr. company. Suder re-entered railway service as purchasing agent of the Akron, Canton & Youngstown, and the Northern Ohio, and on July 1, 1937 he was promoted to general coal agent and purchasing agent, the position he held at the time of his recent promotion.

Harry W. Von Willer, assistant general freight agent on the Erie, with headquarters at Pittsburgh, Pa., has been promoted to assistant freight traffic manager at Cleveland, Ohio, to succeed L. R. Knapp, whose death on June 23 was announced in the Railway Age of July 2. David R. Thompson, assistant general eastern agent, with headquarters at New York, has been appointed assistant general freight agent at Pittsburgh, replacing Mr. Von Willer, and Charles A. Stoeber, assistant general freight agent with headquarters at Youngstown, Ohio, has been appointed assistant general eastern freight agent at New York, to relieve Mr. Thompson. Harry C. Schmidt, chief clerk to the vice-president at Chicago, has been promoted to assistant general freight agent at Youngstown, succeeding Mr. Stoeber. The above appointments are effective August 1.

ENGINEERING AND SIGNALING

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Eugene Y. Allen, special engineer of the Reading, with headquarters at Philadelphia, Pa., has been appointed assistant chief engineer, with the same headquarters, as reported in the Railway Age of July 2. Mr. Allen was born at Camden, N. J., and was educated at Dearborn-Morgan School, Orange, N. J., and Princeton University (C. E. 1899). He entered railroad service in 1901 with the Long Island and later was employed by the Pennsylvania and the Hudson & Manhattan. In 1908 he was appointed town engineer for South Orange, N. J., and in 1909 became selling agent for railroad and mill supplies. During 1910 and 1911 he was office engineer, revaluation of railroads and canals for the New Jersey State Board of Assessors, then going with the Maine Slate Company of Monson. During 1912-1914 he was engaged 1g

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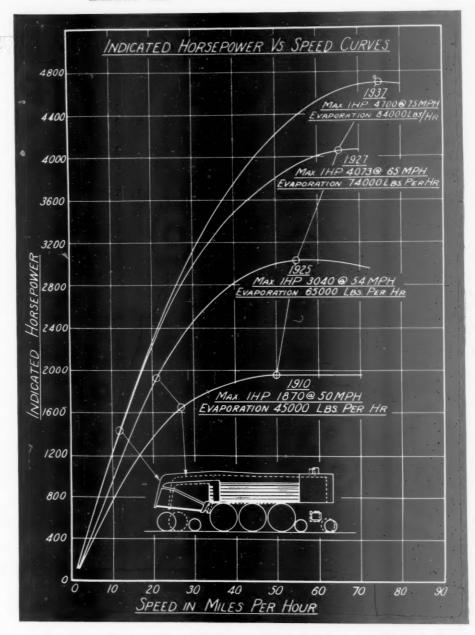
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150% More Horsepower

> 50% More Speed



STEAM MARCHES ON!

STEAM locomotive development within the last 20 years is strikingly illustrated by the growth of passenger motive power on a railroad which has utilized four outstanding designs during this period. The original type was the Pacific, or 4-6-2. The total weight was about 270,000 pounds with 171,500 pounds on drivers. Starting tractive effort was 30,900 pounds; indicated horsepower about 2,000; boiler pressure 200 pounds per sq. in. and drivers 79 inches in diameter.

The three succeeding classes of locomotives retained the three driving axles. Weight was slightly increased and

weight on drivers remained approximately the same. Tractive effort, and particularly horsepower, however, have continuously gone up as shown in above curves. The important improvement to be noted is that the maximum power in each later development was reached at a higher speed than its predecessor.

With general dimensions, excepting boiler pressures, practically the same, the power has increased 15 per cent; and with the same number of driving axles and approximately the same weight on drivers, the power has increased 150 per cent.

AMERICAN LOCOMOTIVE COMPANY
30 CHURCH STREET-NEW YORK-N-Y

in valuation work on several railroad and water works and made special reports.



E. Y. Allen

From 1914 to 1919 he served as assistant valuation engineer of the Philadelphia & Reading (now Reading) and the Central of New Jersey. He later served as valuation engineer of the Reading Company, and was appointed special engineer, engineering department on April 5, 1934.

A. M. Zabriskie, who has been appointed assistant chief engineer of the Central Railroad of New Jersey, with headquarters at Jersey City, N. J., as reported in the July 2 issue, was born in 1882 in New Hampshire and first entered railway service in 1902 with the Lehigh Valley, serving in the engineering department of this company for about two years. In 1904, he entered the service of the Central of New Jersey as a transitman, later being appointed assistant engineer. In January, 1917, he was promoted to engineer of design and in October of the same



Albert M. Zabriskie

year he was advanced to principal assistant engineer, which position he was holding at the time of his recent appointment as assistant chief engineer.

Clark Dillenbeck, chief engineer of the Reading, with headquarters at Philadelphia, Pa., has retired, as reported in the Railway Age of July 2. Mr. Dillenbeck was born on June 24, 1866, at Palatine, N. Y., and was graduated from Canajoharie Academy and Cornell University (C. E. 1888). He entered railway service in May, 1890, as levelman and transitman on the Philadelphia & Reading (now Reading), and in 1894 became assistant engineer. From 1894 to 1918 Mr. Dillenbeck was engineer of bridges and buildings and from 1918-1920 he served as assistant chief engineer of the Reading and Central of New Jersey under the United States Railroad Administration, eastern region. From 1920 to 1927 he was assistant chief engineer of the Reading and in January of the latter year became chief engineer of that



Clark Dillenbeck

road, the position he held until his retirement.

MECHANICAL

Jose Martinez Campos has been appointed superintendent of motive power and machinery of the National Railways of Mexico, succeeding Aquiles Amparan, who has resigned.

C. Angus, car foreman of the Temiskaming & Northern Ontario, with headquarters at Timmins, Ont., has been appointed general car foreman, with jurisdiction over car department matters, with headquarters at North Bay.

A. R. Ruiter, master mechanic on the Chicago, Rock Island & Pacific at Kansas City, Kan., has been promoted to assistant chief operating officer, mechanical, a newly-created position, with headquarters at Chicago. S. E. Mueller, superintendent of shops at Silvis, Ill., has been promoted to superintendent of motive power, second mechanical district, with headquarters at Kansas City, Mo., to succeed J. M. Kerwin, who has been appointed master mechanic at Shawnee, Okla., replacing L. D. Richards, who has been appointed superintendent of shops at Silvis, Ill., replacing Mr. Mueller. G. W. Heyman, master mechanic at Cedar Rapids, Iowa, has been transferred to Kansas City, Kan., replacing Mr. Ruiter, and H. C. McCullough, road foreman of equipment, with headquarters at Kansas City, Mo., has been promoted to master mechanic at Cedar

Rapids, relieving Mr. Heyman. The above appointments are effective August 1.

SPECIAL

Dr. Monges Lopez, assistant chief surgeon of the National Railways of Mexico has been appointed chief surgeon with headquarters at Mexico, D. F., succeeding Dr. F. G. Mejia.

OBITUARY

M. A. Kinney, general master mechanic of the Chesapeake & Ohio, with headquarters at Columbus, Ohio, died on July 16.

Harold P. Richardson, storekeeper of the Maine Central, with headquarters at Waterville, Me., died on June 30, at Elm City Hospital, Waterville, following a short illness. Mr. Richardson had been in the service of the Maine Central for more than 40 years. He was 60 years of age.

William J. Courtney, assistant freight traffic manager on the New York, Chicago & St. Louis with headquarters at Cleveland, Ohio, died July 10. Mr. Courtney was born on January 1, 1884, at Indianapolis, Ind. and entered the service of the Lake Erie & Western (now part of the Nickel Plate) on December 1 1901, as a stenographer in the tariff bureau at Indianapolis. He was later advanced to tariff clerk, chief tariff clerk, and to chief clerk. When the Nickel Plate took control of the L. E. & W. in May, 1923, Mr. Courtney was transferred to Cleveland, where he was appointed chief of the tariff bureau in February, 1926. He was promoted to assistant general freight agent on April 16, 1931, and to general freight agent at Cleveland on July 1, 1935. In November, 1935 he was advanced to assistant freight traffic manager.

Winslow Shelby Pierce, who has been connected with various railroads in executive capacities for many years, died on July 23 of heart disease at his home in Bayville, L. I., N. Y., at the age of 80 years. Mr. Pierce was born on October 23, 1857, at Shelbyville, Ind., and attended Pennsylvania College, the University of Virginia, the University of Michigan (LL.B. 1879) and also Columbia University. He entered railway service in 1885 and served until April, 1892, as assistant to general counsel of the Missouri Pacific, then becoming general attorney of that road and the Texas & Pacific, which positions he held until May, 1912. Pierce was formerly president and chairman of the board of directors of the Western Maryland and also general counsel of the Union Pacific. He also served as chairman of the board, general counsel and director of the St. Louis Southwestern; counsel to the board of the Denver & Rio Grande Western; and general counsel and director of the Ann Arbor. He was general counsel of the Wabash until 1932 and chairman of the board of that road until 1937. Mr. Pierce was senior member of the law firm Pierce & Greer, New York, from 1902 until his retirement in October of last year.

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Operating Revenues and Operating Expenses of Class I Steam Railways in the United States

Compiled from 137 Monthly Reports of Revenues and Expenses Representing 141 Class I Steam Railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF MAY, 1938 AND 1937

	United	States	Eastern	District	Southern	n District	Western	District
Item	1938	1937	1938	1937	1938	1937	1938	1937
Miles of road operated at close of month	234,758	235,547	58,022	58,267	44,711	44,779	132,025	132,501
Revenues:								
Freight	\$217,874,694	\$287,869,666	\$87,182,309	\$125,689,805	\$44,977,434	\$55,434,787	\$85,714,951	\$106,745,074
Passenger	30,869,086	34,041,272	17,375,035	19,187,819	3,723,725	4,380,541	9,770,326	10,472,912
Mail	7,894,259	8,242,912	3,013,655	3,165,065	1,378,750	1,443,764	3,501,854	3,634,083
Express	3,900,995	5,747,935	1,194,867	1,967,976	887,460	1,516,429	1,818,668	2,263,530
All other operating reve-		4444						
nues	12,125,991	16,640,757	6,066,371	8,558,585	1,605,977	2,035,454	4,453,643	6,046,718
Railway operating reve-	272,665,025	352,542,542	114,832,237	158,569,250	52,573,346	64,810,975	105,259,442	129,162,317
Expenses:								
Maintenance of way and								
structures	34,316,424	46,607,877	12,288,027	17,755,429	6,199,498	7,384,196	15,828,899	21,468,252
Maintenance of equipment	53,018,512	71,452,570	21,774,653	32,795,256	10,332,619	12,846,901	20,911,240	25,810,413
Traffic	8,709,709	9,057,615	3,219,067	3,322,828	1,582,091	1,652,311	3,908,551	4,082,476
Transportation—Rail line	107,496,395	123,460,533	47,335,665	56,613,357	18,292,318	20,288,931	41,868,412	46,558,245
Transportation-Water line	386,608	438,304				*****	386,608	438,304
Miscellaneous operations	2,898,651	3,136,343	1,325,286	1,459,140	327,060	361,875	1,246,305	1,315,328
General	10,587,940	13,510,942	4,242,249	5,841,375	1,995,598	2,379,429	4,350,093	5,290,138
Transportation for invest-	301,374	438,975	91 046	60 924	25 722	E1 06E	104 606	226 276
ment—Cr.	301,374	430,973	81,046	60,834	35,722	51,865	184,606	326,276
Railway operating ex- penses	217,112,865	267,225,209	90,103,901	117,726,551	38,693,462	44,861,778	88,315,502	104,636,880
Net revenue from railway operations	55,552,160	85,317,333	24,728,336	40,842,699	13,879,884	19,949,197	16,943,940	24,525,437
Railway tax accruals	28,504,530	30,124,344	12,448,703	12,609,805	5,293,500	6,513,193	10,762,327	11,001,346
Railway operating income	27,047,630	55,192,989	12,279,633	28,232,894	8,586,384	13,436,004	6,181,613	
Equipment rents—Dr. balance	7,948,479	7,808,182	3,164,121	3,402,838	1,011,959	759,360	3,772,399	13,524,091
Joint facility rent—Dr. bal-	7,540,475	7,000,102	3,104,121	3,402,030	1,011,939	739,300	3,112,377	3,645,984
ance	2,602,450	3,145,351	1,224,046	1,717,657	337,226	328,113	1,041,178	1,099,581
come	16,496,701	44,239,456	7,891,466	23,112,399	7,237,199	12,348,531	1,368,036	8,778,526
Ratio of expenses to revenues (per cent)	79.6	75.8	78.5	74.2	73.6	69.2	83.9	81.0
Depreciation included in op- erating expenses	16,922,068	16,280,565	7,423,844	7,271,131	3,289,235	3,122,543	6,208,989	5,886,891
Pay roll taxes	7,786,837	7,723,257	3,321,522	3,192,070	1,417,607	1,349,922	3,047,708	3,181,265
All other taxes	20,717,693	22,401,087	9,127,181	9,417,735	3,875,893	5,163,271	7,714,619	7,820,081
	FO	R FIVE MON	THS ENDED	WITH MAY,	1938 AND 19	37		
Miles of road operated at	FO:	235,717	THS ENDED 58,048	WITH MAY, 58,308	1938 AND 19	37 44,795	132,064	132,614
close of month†							132,064	132,614
close of month† Revenues:	234,830	235,717	58,048	58,308	44,718	44,795		
close of month† Revenues: Freight Passenger	234,830 \$1,073,102,601 162,517,776	235,717 \$1,422,972,026 173,179,897	58,048 \$429,691,004 88,967,656	58,308 \$625,161,846 94,757,216	\$226,094,595 25,509,289	44,795 \$282,168,402 27,581,111	\$417,317,002 48,040,831	\$515,641,778 50,841,570
close of month† Revenues: Freight Passenger Mail	234,830 \$1,073,102,601	235,717 \$1,422,972,026 173,179,897 39,984,695	58,048 \$429,691,004	58,308 \$625,161,846	\$226,094,595 25,509,289	44,795 \$282,168,402	\$417,317,002	\$515,641,778 50,841,570 17,599,934
close of month† Revenues: Freight Passenger Mail Express All other operating reve-	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731	58,048 \$429,691,004 88,967,656 14,886,739 6,350,713	58,308 \$625,161,846 94,757,216 15,307,372 9,458,175	\$226,094,595 25,509,289 6,867,128 4,578,570	\$282,168,402 27,581,111 7,077,389 5,948,215	\$417,317,002 48,040,831 17,218,725 7,949,473	\$515,641,778 50,841,570 17,599,934 8,827,341
close of month† Revenues: Freight Passenger Mail Express All other operating revenues	234,830 \$1,073,102,601 162,517,776 38,972,592	235,717 \$1,422,972,026 173,179,897 39,984,695	58,048 \$429,691,004 88,967,656 14,886,739	58,308 \$625,161,846 94,757,216 15,307,372	\$226,094,595 25,509,289	\$282,168,402 27,581,111 7,077,389	\$417,317,002 48,040,831 17,218,725	\$515,641,778 50,841,570 17,599,934
close of month† Revenues: Freight Passenger Mail Express All other operating reve-	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731	58,048 \$429,691,004 88,967,656 14,886,739 6,350,713	58,308 \$625,161,846 94,757,216 15,307,372 9,458,175	\$226,094,595 25,509,289 6,867,128 4,578,570	\$282,168,402 27,581,111 7,077,389 5,948,215	\$417,317,002 48,040,831 17,218,725 7,949,473	\$515,641,778 50,841,570 17,599,934 8,827,341
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating rever	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512	58,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689	58,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861	58,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801	\$8,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861	58,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801	58,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995	58,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,510,687	58,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line.	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045	58,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801	58,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 216,185,815	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line Transportation—Water line	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 20,020,435	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 2,424,856	58,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,510,687 15,555,855 248,093,271	\$8,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 216,185,815 2,020,435	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,856
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line. Transportation—Water line Miscellaneous operations.	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 2,424,856 16,330,026	58,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,510,687 15,555,855 248,093,271 6,970,389	58,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363,099	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 216,185,815 2,020,435 6,310,967	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,856 6,545,135
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line. Transportation—Water line. Miscellaneous operations General Transportation for invest-	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605 54,207,869	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 24,24,856 16,330,026 67,581,736	\$8,048 \$429,691,004 88,967,6556 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,5510,687 15,555,855 248,093,271 6,970,389 21,508,435	\$8,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363,099 29,441,786	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249 10,336,270	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792 11,726,158	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 20,185,815 20,20,435 6,310,967 22,363,164	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 24,24,856 6,545,135 26,413,792
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line Transportation—Water line Miscellaneous operations General Transportation for investment—Cr. Railway operating ex-	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605 54,207,869 1,053,989	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 2,424,856 16,330,026 67,581,736 1,494,647	\$8,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,510,687 15,555,855 248,093,271 6,970,389 21,508,435 180,815	\$8,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363.099 29,441,786 227,973	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249 10,336,270 187,637	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792 11,726,158 225,606	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 216,185,81 2,020,435 6,310,967 22,363,164 685,537	\$515,641,778 50,841,570 17,59,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,856 6,545,135 26,413,792 1,041,068
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605 54,207,869	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 24,24,856 16,330,026 67,581,736	\$8,048 \$429,691,004 88,967,6556 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,5510,687 15,555,855 248,093,271 6,970,389 21,508,435	\$8,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363,099 29,441,786	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249 10,336,270	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792 11,726,158	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 20,185,815 20,20,435 6,310,967 22,363,164	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,856 6,545,135
close of month? Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line. Transportation—Water line Miscellaneous operations. General Transportation for investment—Cr. Railway operating expenses Net revenue from railway operations	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605 54,207,869 1,053,989 1,113,769,976 240,498,725	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 2,424,856 16,330,026 67,581,736 1,494,647 1,293,047,978 442,173,883	\$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,510,687 15,555,855 248,093,271 6,970,389 21,508,435 180,815 466,931,365 103,260,436	58,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363,099 29,441,786 227,973 573,778,534 209,064,959	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249 10,336,270 187,637 203,809,993 67,734,348	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792 11,726,158 225,606 224,362,499 108,590,519	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 20,20,435 6,310,967 22,363,164 685,537 443,028,618 69,503,941	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,856 6,545,135 26,413,792 1,041,068 494,906,945 124,518,405
close of month? Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line. Transportation—Water line Miscellaneous operations. General Transportation for investment—Cr. Railway operating expenses Net revenue from railway operations. Railway tax accruals Railway tax accruals Railway operating income	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605 54,207,869 1,053,989 1,113,769,976 240,498,725 141,301,708 99,197,017	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 2,424,856 16,330,026 67,581,736 1,494,647 1,293,047,978 442,173,883 147,893,393 294,280,490	\$8,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,510,687 15,555,855 248,093,271 6,970,389 21,508,435 180,815 466,931,365 103,260,436 59,970,099 43,290,340	\$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363.099 29,441,786 227,973 573,778,534 209,064,959 61,403,272 147,661,687	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249 10,336,270 187,637 203,809,993 67,734,348 28,062,431 39,671,917	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792 11,726,158 225,606 224,362,499 108,590,519 33,006,672 75,583,847	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 216,185,815 2,020,435 6,310,967 22,363,164 685,537 443,028,618 69,503,941 53,269,181 16,234,760	\$515,641,778 50,841,570 17,59,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,956 6,545,135 26,413,792 1,041,068 494,906,945 124,518,405 53,483,449 71,034,956
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line. Transportation—Water line Miscellaneous operations. General Transportation for investment—Cr. Railway operating expenses Net revenue from railway operations Railway tax accruals Railway tax accruals Railway operating income Equipment rents—Dr. balance Oint facility rent—Dr. balance Goint facility rent—Dr. balance Counter the second of the seco	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605 54,207,869 1,053,989 1,113,769,976 240,498,725 141,301,708 99,197,017 39,100,880	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 2,424,856 16,330,026 67,581,736 1,494,647 1,293,047,978 442,173,883 147,893,393 294,280,490 38,717,871	\$8,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,510,687 15,555,855 248,093,271 6,970,339 21,508,435 180,815 466,931,365 103,260,436 59,970,096 43,290,340 16,146,622	58,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363,099 29,441,786 227,973 573,778,534 209,064,959 61,403,272 147,661,687 16,761,054	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249 10,336,270 187,637 203,809,993 67,734,348 28,062,431 39,671,917 4,297,006	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792 11,726,158 225,606 224,362,499 108,590,519 33,006,672 75,583,847 3,228,520	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 216,185,815 2,020,435 6,310,967 22,363,164 685,537 443,028,618 69,503,941 53,269,181 16,234,760 18,657,252	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,856 6,545,135 26,413,792 1,041,068 494,906,495 124,518,405 53,483,449 71,034,956 18,728,297
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line. Transportation—Water line Miscellaneous operations. General Transportation for investment—Cr. Railway operating expenses Net revenue from railway operations Railway tax accruals Railway tax accruals Railway operating income quipment rents—Dr. balance Joint facility rent—Dr. balance Joint facility rent—Dr. balance Net railway operating in-	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605 54,207,869 1,053,989 1,113,769,976 240,498,725 141,301,708 99,197,017 39,100,880 14,807,633	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 2,424,856 16,330,026 67,581,736 1,494,647 1,293,047,978 442,173,883 147,893,393 294,280,490 38,717,871 15,450,632	58,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,510,687 15,555,855 248,093,271 6,970,389 21,508,435 180,815 466,931,365 103,260,436 59,970,096 43,290,340 16,146,622 7,906,864	\$8,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363.099 29,441,786 227,973 573,778,534 209,064,959 61,403,272 147,661,687 16,761,054 8,691,752	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249 10,336,270 187,637 203,809,993 67,734,348 28,062,431 39,671,917 4,297,006 1,656,012	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792 11,726,158 225,606 224,362,499 108,590,519 33,006,672 75,583,847 3,228,520 1,520,381	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 216,185,815 2,020,435 63,310,907 22,363,164 685,537 443,028,618 69,503,941 53,269,181 16,234,760 18,657,252 5,244,757	\$515,641,778 50,841,579 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,856 6,545,132 26,413,792 1,041,068 494,906,945 124,518,405 53,483,449 71,034,956 18,728,297 5,238,499
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line. Transportation—Water line Miscellaneous operations. General Transportation for investment—Cr. Railway operating expenses Net revenue from railway operations Railway tax accruals Railway tax accruals Railway tax accruals Come Long tacility rent—Dr. balance Joint facility rent—Dr. balance Joint railway operating income Net railway operating income Ratio of expenses to revenues	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605 54,207,869 1,053,989 1,113,769,976 240,498,725 141,301,708 99,197,017 39,100,880 14,807,633 45,288,504	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 2,424,856 16,330,026 67,581,736 1,494,647 1,293,047,978 442,173,883 147,893,393 294,280,490 38,717,871 15,450,632 240,111,987	\$8,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,551,687 15,555,852 248,093,271 6,970,389 21,508,435 180,815 466,931,365 103,260,436 59,970,096 43,290,340 16,146,622 7,906,864 19,236,854	\$8,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363.099 29,441,786 227,973 573,778,534 209,064,959 61,403,272 147,661,687 16,761,054 8,691,752 122,208,881	\$226,094,595 25,509,285 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249 10,336,270 187,637 203,809,993 67,734,348 28,062,431 39,671,917 4,297,006 1,656,012 33,718,899	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792 11,726,158 225,606 224,362,499 108,590,519 33,006,672 75,583,847 3,228,520 1,520,381 70,834,946	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 216,185,815 2,020,435 6310,967 22,363,164 685,537 443,028,618 69,503,941 53,269,181 16,234,760 18,657,252 5,244,757 *7,667,249	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,856 6,545,135 26,413,792 1,041,068 494,906,945 124,518,405 53,483,449 71,034,956 18,728,297 5,238,499 47,068,160
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line. Transportation—Water line Miscellaneous operations. General Transportation for investment—Cr. Railway operating expenses Net revenue from railway operations Railway tax accruals Railway tax accruals Railway tax accruals Net revenue from railway operations Railway tax accruals Net revenue from railway operations Railway tax accruals Net revenue from railway operations Railway tax accruals Railway tax accruals Net revenue from railway operations Railway operating income Equipment rents—Dr. balance Joint facility rent—Dr. balance Net railway operating income Ratio of expenses to revenues (per cent). Depreciation included in operations	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605 54,207,869 1,053,989 1,113,769,976 240,498,725 141,301,708 99,197,017 39,100,880 14,807,633 45,288,504 82.2	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 2,424,856 16,330,026 67,581,736 1,494,647 1,293,047,978 442,173,883 147,893,393 294,280,490 38,717,871 15,450,632 240,111,987 74.5	\$8,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,5510,687 15,555,852 248,093,271 6,970,389 21,508,435 180,815 466,931,365 103,260,436 59,970,096 43,290,340 16,146,622 7,906,864 19,236,854 81.9	\$8,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363.099 29,441,786 227,973 573,778,534 209,064,959 61,403,272 147,661,687 16,761,054 8,691,752 122,208,881 73.3	\$226,094,595 25,509,289 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249 10,336,270 187,637 203,809,993 67,734,348 28,062,431 39,671,917 4,297,006 1,656,012 33,718,899 75.1	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792 11,726,158 225,606 224,362,499 108,590,519 33,006,672 75,583,847 3,228,520 1,520,381 70,834,946 67,4	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 216,185,815 2,020,435 6,310,967 22,363,164 685,537 443,028,618 69,503,941 53,269,181 16,234,760 18,657,252 5,244,757 *7,667,249 86.4	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,856 6,545,135 26,413,792 1,041,068 494,906,945 124,518,405 53,483,449 71,034,956 18,728,297 5,238,499 47,068,160 79,9
close of month† Revenues: Freight Passenger Mail Express All other operating revenues Railway operating revenues Expenses: Maintenance of way and structures Maintenance of equipment Traffic Transportation—Rail line. Transportation—Water line Miscellaneous operations. General Transportation for investment—Cr. Railway operating expenses Net revenue from railway operations Railway tax accruals Railway tax accruals Railway tax accruals Come Long tacility rent—Dr. balance Joint facility rent—Dr. balance Joint railway operating income Net railway operating income Ratio of expenses to revenues	234,830 \$1,073,102,601 162,517,776 38,972,592 18,878,756 60,796,976 1,354,268,701 159,587,198 278,907,822 43,049,085 561,520,951 2,020,435 15,530,605 54,207,869 1,053,989 1,113,769,976 240,498,725 141,301,708 99,197,017 39,100,880 14,807,633 45,288,504	235,717 \$1,422,972,026 173,179,897 39,984,695 24,233,731 74,851,512 1,735,221,861 193,587,864 348,258,995 43,352,103 623,007,045 2,424,856 16,330,026 67,581,736 1,494,647 1,293,047,978 442,173,883 147,893,393 294,280,490 38,717,871 15,450,632 240,111,987	\$8,048 \$429,691,004 88,967,656 14,886,739 6,350,713 30,295,689 570,191,801 59,473,543 115,551,687 15,555,852 248,093,271 6,970,389 21,508,435 180,815 466,931,365 103,260,436 59,970,096 43,290,340 16,146,622 7,906,864 19,236,854	\$8,308 \$625,161,846 94,757,216 15,307,372 9,458,175 38,158,884 782,843,493 77,253,154 160,549,543 15,977,104 283,421,821 7,363.099 29,441,786 227,973 573,778,534 209,064,959 61,403,272 147,661,687 16,761,054 8,691,752 122,208,881	\$226,094,595 25,509,285 6,867,128 4,578,570 8,494,759 271,544,341 31,710,504 54,128,430 8,331,312 97,241,865 2,249,249 10,336,270 187,637 203,809,993 67,734,348 28,062,431 39,671,917 4,297,006 1,656,012 33,718,899	\$282,168,402 27,581,111 7,077,389 5,948,215 10,177,901 332,953,018 35,963,562 61,771,360 8,345,003 104,360,230 2,421,792 11,726,158 225,606 224,362,499 108,590,519 33,006,672 75,583,847 3,228,520 1,520,381 70,834,946	\$417,317,002 48,040,831 17,218,725 7,949,473 22,006,528 512,532,559 68,403,151 109,268,705 19,161,918 216,185,815 2,020,435 6310,967 22,363,164 685,537 443,028,618 69,503,941 53,269,181 16,234,760 18,657,252 5,244,757 *7,667,249	\$515,641,778 50,841,570 17,599,934 8,827,341 26,514,727 619,425,350 80,371,148 125,938,092 19,029,996 235,224,994 2,424,856 6,545,135 26,413,792 1,041,068 494,906,945 124,518,405 53,483,449 71,034,956 18,728,297 5,238,499 47,068,160

^{*} Deficit or other reverse items.

[†] Represents an average of the mileage reported at the close of each month within the period.

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PROPOSALS

Sealed proposals will be received by Mobile and Ohio Railroad, c/o W. J. Diehl, Purchasing Agent, Fullerton Building, St. Louis, Missouri, until 3:00 P. M. August 15, 1938, for furnishing certain materials for flashing light installation at highway crossing, Route 156, Waterloo, Illinois, under the Federal Grade Crossing Program in the State of Illinois.